

**OBSERVING FROM THE MARGINS: JAMES PARKINSON
AND THE SHAKING PALSY**

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A dissertation submitted to Johns Hopkins University in conformity with the
requirements for the degree of Doctor of Philosophy

Baltimore, Maryland
March, 2014

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Abstract

In 1817, James Parkinson (1755-1824) published *An Essay on the Shaking Palsy*, describing *paralysis agitans*, or the shaking palsy, a condition he believed to be a specific and newly characterized disease. The disease concept specified both a constellation of signs and symptoms, including an abnormal gait, tremor, and difficulty initiating movement, and a specific order in which these signs and symptoms appeared, regardless of sufferers' individual constitutions.

Existing biographical and scholarly work about Parkinson and what is now known as Parkinson's disease explicates the *Essay* but does not explore how Parkinson came to write it; his initial observations and subsequent conceptualizing of the disease have not been examined. Using the framework of the history of disease, this dissertation explores the early history of the shaking palsy, beginning with the training in observation that enabled Parkinson to envision the disease. He acquired this training in several settings: in his apprenticeship as a surgeon-apothecary and subsequent hospital experience; through his later period of study with John Hunter; and through his intensive study of fossils and chemistry. Next, it explores Parkinson's neighborhood in Shoreditch, an increasingly impoverished suburb of London, where his medical work included attendance at madhouses and the parish workhouse. It then examines what inhabiting that environment would have allowed Parkinson to see.

At a time when disease was increasingly seen as localized in the body's tissues, correlatable with characteristic pathologic lesions visible at autopsy, the shaking palsy

lacked a characteristic lesion to justify its classification as a new disease. To identify, bound, and define the disease, Parkinson needed a different conceptual framework to structure his ideas. This he accomplished using the framework of case histories and case series, a method he had employed in earlier published work. The shaking palsy continued to lack a pathologic explanation for many decades after Parkinson published the *Essay*. The dissertation ends by exploring how the disease concept survived and came into general use during the first decades following the *Essay*'s publication.

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Table of Contents

<i>Acknowledgements</i>	v
Introduction	1
Chapter 1. James Parkinson's Early Training	33
Chapter 2. Mr. Parkinson's Neighborhood	67
Chapter 3. Seeing in Cases: James Parkinson in a Culture of Observation	113
Chapter 4. The <i>Essay on the Shaking Palsy</i>	162
Chapter 5. Gaining a Foothold: The Early Reception Parkinson's <i>Essay</i>	224
Conclusion	265
Epilogue. Remembering Parkinson as a Forgotten Man	270
<i>Appendices</i>	287
<i>Bibliography</i>	298
<i>Curriculum Vitae</i>	326

Acknowledgements

This project has taken a long time to complete, and many people have helped me along the way. Some have simply encouraged me to start writing, or to keep writing at times when I was stuck. Others have helped me think through the complex problems that stumped me at different times. Still others have helped with suggestions, food, challenges, advice, arguments, the reading of drafts, coffee, critiques, shelter, and tips about sources. I am grateful to more people than I can name, but I want to give particular thanks to Lee Aitken, David Andrews, Jesse Ballenger, Stephen Casper, Lorraine Chickering, Bill Connet, Michael Dennis, Max Efremov, John Eyler, Margaret Fulton, Norman Gevitz, Eliza Hill, Abby Holley, Neal Holtan, the late Christopher Hunt, Howard Kushner, Dan and Linzel McBride, Diane McWhorter, Linda Norden, Laurie Schafer, Jole Shackelford, Kevin Siena, Coraleeze Thompson, and Sevil Yasar.

Thank you also to the faculty and staff of the Institute for the History of Medicine for their intellectual, practical, and moral support; to the members of Philip Morgan's Atlantic Seminar, especially the early cohort of Cole Jones, Jonathan Gienapp, Claire Gherini, Katherine Arner, and Stephanie Gamble, and to Philip Morgan himself; to Gianna Pomata and Nathaniel Comfort for helping me to think about cases; to Gert Brieger, Christopher Durso, Linda Fried, and David Hellmann for support of my early time as a graduate student at Johns Hopkins; to Zoltan Mari and the DC-Maryland Regional Movement Disorder Group for welcoming me to their meetings; to Christine Ruggere, whose knowledge of sources and how to find them sometimes seemed magical, for enormous generosity with her time; to Graham Mooney for helping me to understand the geography and demography of early nineteenth-century London; and to Randall

Packard for his early assistance and continuing support for this project, and for insights about the biography of disease.

The late Harry M. Marks gave me a great deal of help with the early stages of this project and served, until he became too ill to do so, as a kind of unofficial co-advisor for me. He too was extremely generous with his time. Even after years of talking to him often, I never ceased to be amazed by the breadth of his knowledge and his willingness to share ideas.

I most especially want to thank my advisor, Mary Fissell, for her extraordinary help with this project, truly beyond the call of duty. I do not know how I could have completed this project if it were not for Mary's tutelage, encouragement, deadlines, erudition, insight, careful readings, and ability to provide structure and keep her eye on the distant goal.

I would also like to give special thanks to my children, Ariane Davisson, Benjamin Boulton, and Catherine Davisson Bye, for reading and commenting on drafts, for putting up with a lot of harried nonsense while I was writing, and especially for unwavering encouragement.

INTRODUCTION

“The disease, respecting which the present inquiry is made, is of a nature highly afflictive. Notwithstanding which, it has not yet obtained a place in the classification of nosologists; some have regarded its characteristic symptoms as distinct and different diseases, and others have given its name to diseases differing essentially from it; whilst the unhappy sufferer has considered it as an evil, from the domination of which he had no prospect of escape.”¹

With these words as a preface, James Parkinson undertook the task of describing what he believed to be a previously unrecognized disease, a disease he called the shaking palsy, or *paralysis agitans*. It was a disease he had clearly been thinking about for some time, but how it came to his attention he does not say.

Sometime before he published his conjectures in 1817, Parkinson (1755-1824), a surgeon-apothecary working in London, noticed that he had seen several people whose ability to move was impaired in similar ways. Though they appeared to retain their wits, they shook when they tried to remain still, they hesitated when they tried to move, and they shared a distinctive gait. Some of these problems had been described separately in earlier medical writings, but Parkinson realized that he had not seen them described together. He concluded that when they occurred together, they constituted a specific, serious, and previously unrecognized disease.

When Parkinson named this new disease, he knew that by choosing the term ‘shaking palsy,’ he was appropriating an English name that had been applied, inaccurately he thought, to other conditions in the past. In 1817, he published a short book describing the disease, *An Essay on the Shaking Palsy*, listing its hallmarks in the book’s epigraph:

¹ James Parkinson, *An Essay on the Shaking Palsy* (London: Printed by Whittingham and Rowland, Gaswell Street, for Sherwood, Neely, and Jones, Paternoster Row, 1817), facsimile edition (London: Dawsons of Pall Mall, 1966), p. ii.

*“Involuntary tremulous motion, with lessened muscular power, in parts not in action and even when supported; with a propensity to bend the trunk forward, and to pass from a walking to a running pace: the senses and intellects being uninjured.”*²

Parkinson based his claim, that *paralysis agitans* was a real but previously unknown disease, on his observations of six people, whose cases he describes in the *Essay*’s first chapter. Three of these six “cases” were people he observed on the street rather than in his medical practice, and one of them he observed only at a distance.

Before presenting these six individual cases in the *Essay*, however, Parkinson presents a composite case that he calls “History,” an illustrative prototype that encompasses the disease’s many manifestations and that delineates how it begins, progresses, and terminates.³ Implicitly culled from individual cases he had observed, the “History” specifies not only the disease’s characteristic signs and symptoms (the first defining feature of the disease) but also, crucially, the order in which they appear over a long period of time (its other defining feature).⁴ Once symptoms appear, he notes, they do not resolve; instead, they accumulate and worsen.

Over six pages, the “History” takes the reader from the first suggestions of the disease through its final phases, beginning with its first insidious manifestations, the onset of which a sufferer can rarely pinpoint: “an almost imperceptible weakness, with a proneness to trembling in one part,” sometimes the head, but usually one of the hands or arms. Next appear weakness and trembling in another part of the body; difficulty standing up straight while walking; fatiguing and tremor in yet another extremity; unsteady hands

² Parkinson, *Essay*, p. 1.

³ The “History” is found in Parkinson, *Essay*, pp. 3-9.

⁴ Except when using these words as they were used in the past, I use the word “symptom” to denote what is felt and described by a sufferer and “sign” to denote what a medical practitioner can observe in that sufferer. During the eighteenth and early nineteenth centuries, the word “symptom” denoted both.

that impede writing or “any nicer kind of manipulation;” and difficulty raising the feet enough to keep from falling while walking.

Soon, “the submission of the limbs to the directions of the will can hardly be obtained in the performance of the most ordinary offices of life.” It becomes difficult to feed oneself with a utensil, and “agitation of the limbs” is constant. Sleep is disturbed; it becomes impossible to walk without running; one has to be fed by others; the bowels become “torpid;” drooling begins, with “saliva continually trickling from the mouth; speech and swallowing become impossible; “urine and faeces are passed involuntarily;” and last, “constant sleepiness, with slight delirium, and other marks of extreme exhaustion, announce the wished-for release.” The disease takes years to unfold, but with enough time, it is uniformly lethal.

From Parkinson’s extended description of the disease, his reason for choosing, or appropriating, the names shaking palsy and *paralysis agitans*—each an oxymoron—becomes clear. The disease he is describing is a paradox: it combines shaking, or agitation, with palsy, or paralysis. It is a problem of too much motion, the tremblings of the extremities, and of too little as well. The body stops obeying both the intention to move and the intention not to move; the will becomes simultaneously unable to initiate movement and unable to curtail it.

By positioning the composite “History” before, rather than after, his presentation of the six individual cases, Parkinson is implicitly emphasizing what the disease’s sufferers share rather than how they differ. Significantly, he is positing that the disease follows more or less the same course in all sufferers, regardless of their individual constitutions, social positions, personal histories, and medical pasts. By doing so, he is

situating his concept of the disease clearly, in the context of the history of ideas about disease, as a specific disease rather than a constitutional derangement or disorder of an individual sufferer's humors.

The disease that Parkinson describes in the *Essay* is basically the one we now know as Parkinson's disease, but only after much conceptual transformation. What follows here is a history of one aspect of that disease. It is a history of the disease concept, both its initial development and the reconfiguring that the concept underwent during the decades following Parkinson's work, a time during which it came to be part of the medical landscape and, in a sense, part of the toolkit of medicine. Focusing on the disease concept in this way admittedly represents only one of one of many possible histories of the disease. Other approaches might concentrate more on recent phenomena, for example: on the work of particular neurologists, or particular discoveries in neuroanatomy, neurophysiology, or neurochemistry; on patients' and practitioners' experiences; on the rise of popular activism and advocacy groups; or on the nuances of medical and surgical treatment. This work aims to illuminate the early history of the idea of the disease, and to examine the social, medical, and cultural implications of the very different things people meant, in learned or popular discourse, when they talked about Parkinson's disease, or *paralysis agitans*, or the shaking palsy, and what they meant when they excluded something from that category.

Adrian Wilson once noted that concepts of disease have been understudied compared to other aspects of medical history.⁵ Until fairly recently, historians exploring

⁵ Adrian Wilson, "On the History of Disease-concepts: The Case of Pleurisy," *History of Science* 2000; 38 (Pt. 3:121): 271-319, p. 271.

them have focused more often on epidemic, malignant, infectious, and explicitly mental diseases than on chronic, sporadic, or—especially-- degenerative physical diseases. Scholars have explored the history of AIDS, tuberculosis, cancer, and various disorders of mood, behavior, and thought for their cultural meaning and evoked networks of associations, in ways that are informative for this project.⁶ Often the stories are of stigma and marginalization: of isolation, of inexorable progression toward death, and, in one way or another, of the fear of contagion.

Such analysis has been performed only more recently with a few of what are now, like Parkinson's disease, called neurodegenerative diseases. Here, similarly, the narrative thrust often includes a cultural fear of developing the disease.⁷ While the specter of Parkinson's disease does not currently evoke the kind of terror in the popular imagination that cancer, AIDS, and Alzheimer's disease do, it is nonetheless a serious, protracted, disabling, and extremely frustrating disease for its sufferers and an especially challenging disease for their caregivers.

Several particular features of Parkinson's disease make it a rich topic for historical exploration. It is a disease neither of the mind nor of the body, but inextricably

⁶ See, among many other possible examples from within this category, Susan Sontag, *Illness as Metaphor* (New York: Farrar, Straus and Giroux, 1978) and *AIDS and Its Metaphors* (New York: Farrar, Straus and Giroux, 1988); James T. Patterson, *The Dread Disease: Cancer in Modern American Life* (Cambridge: Harvard University Press, 1987); Sheila Rothman, *Living in the Shadow of Death: Tuberculosis and the Social Experience of Illness in America* (New York: Basic Books, 1994); and Joan Bromberg, *Fasting Girls: The History of Anorexia Nervosa* (New York: Penguin Books, 1989). Recent explorations of other kinds of diseases include Keith Wailoo, *Drawing Blood: Technology and Disease Identity in Twentieth-Century America* (Baltimore: Johns Hopkins University Press, 1997) and Chris Feudtner, *Bittersweet: Diabetes, Insulin, and the Transformation of Illness* (Chapel Hill: University of North Carolina Press, 2003).

⁷ See, for example, Alice Wexler's two books on Huntington's disease, *Mapping Fate: A Memoir of Family, Risk, and Genetic Research* (New York: Times Books, Random House Press, 1995) and *The Woman Who Walked into the Sea: Huntington's and the Making of a Genetic Disease* (New Haven: Yale University Press, 2008); Colin L. Talley, *A History of Multiple Sclerosis* (Westport, Connecticut: Praeger, 1008); T. Jock Murray, *Multiple Sclerosis: The History of a Disease* (New York: Demos Books, 2005); and Jesse Ballenger, *Self, Senility and Alzheimer's Disease in Modern America: A History* (Baltimore: Johns Hopkins University Press, 2006).

of both. It is associated with aging, and its manifestations raise the long-disputed and historically fraught issue of where normal aging ends and disease begins. The approaches taken to treating Parkinson's disease have run the gamut of the therapeutic spectrum, from constitutional to pharmacologic to psychotherapeutic to surgical. And though a great deal has been written about discoveries related to the disease, to date its cultural meaning and the images used to represent it have mostly remained unexplored.

The history of individual diseases like Parkinson's disease is often presented in the medical literature in terms of a series of scientific discoveries, as if understanding unfolded more or less linearly, one discovery neatly led to another, and no 'valid' knowledge was lost along the way.⁸ For Parkinson's disease, such narratives oversimplify what was in fact a much more complex and contingent set of changes. Over almost two centuries, ideas once prominent disappeared, seemingly forgotten, only to resurface, in different idioms, decades later. Some ideas long dominant disappeared abruptly, while others appeared far later than some current writers would have expected them to.

Moreover, the individual signs and symptoms attributed to Parkinson's disease all had (and indeed continue to have) cultural meanings-- meanings that have changed over

⁸ In the case of Parkinson's disease, see, for example, the afterword, "Parkinsonism Since Parkinson," appended by F. Clifford Rose to A. D. Morris's biography of Parkinson that Rose edited: A.D. Morris, *James Parkinson: His Life and Times*, edited by F. Clifford Rose (Boston, Basel and Berlin: Birkhäuser, 1989), pp. 176-87. See also John M. S. Pearce, "Parkinson's Disease," *Fragments of Neurological History* (London: Imperial College Press, 2003), pp. 417-28; Christopher G. Goetz, "The History of Parkinson's Disease: Early Clinical Descriptions and Neurological Therapies," *Cold Spring Harbor Perspectives in Medicine* 2011;1: a008862: 1-15; and Christopher G. Goetz, Teresa A. Chmura, and Douglas J. Lanska, "The History of Parkinson's Disease: Part 2 of the MDS-Sponsored History of Movement Disorders Exhibit, Barcelona, June, 2000," *Movement Disorders* 2001; 16(1): 156-61; Stanley Finger, "Some Movement Disorders," *Origins of Neuroscience: A History of Explorations into Brain Function* (Oxford and New York: Oxford University Press, 1994), pp. 223-8; and Kenneth Laurence Tyler, "A History of Parkinson's Disease," in William C. Koller, ed., *Handbook of Parkinson's Disease, 2nd Edition* (New York, Basel, and Hong Kong: Marcel Dekker, Inc., 1992). These are a few among many other similarly organized accounts of the history of the disease.

time, becoming linked to, and then unlinked from, networks of other meanings. Signs like trembling, a stooped posture, slowed movement, rigidity of muscles, and drooling all function as cultural signifiers, suggesting not just disease but other things about the person manifesting them; all have connotations. Thus each visible manifestation of the shaking palsy, or later of Parkinson's disease, can be seen in the context of a universe of possible associations that attach to the disease and its sufferers.

Similarly, medical ideas framed in the literature as emerging from purely scientific thought were in fact shaped in and by a culture that such narratives may omit. A disease that James Parkinson initially imagined as a problem of the spinal cord was thus, over the course of the next 150 years, reconfigured at different times as a moral failure (a dearth of will), a psychologically generated (and even psycho-sexual) problem, a disease for which a rigid personality structure predisposed one, a disease of the spinal cord, of the cerebellum, of the cerebral cortex, and then of the basal ganglia; a deficiency of neurotransmitting chemicals; and more recently, as a disease defined and bounded by response to a certain class of medications.

How Parkinson's disease has been understood and classified over time in fact reflects not only developments in laboratory and clinical science, but also developments outside them: negotiations in medical politics; changes in the relationships between patients and practitioners; the emergence of medical specialties; and the resulting and continually contested apportioning of different varieties of suffering to particular specialties' domains, all processes that may require reimagining the disease itself. How Parkinson's disease has been understood reflects the influence of changing social structures, including those of medical practice and education; enormous shifts in the

larger culture; changing ideas about the nature of aging, the relationship of mind to body and mind to brain; transformations in the universe of possible therapeutic approaches-- first pharmaceutical and constitutional, later surgical and custodial-- and, eventually, the influence of industry, advocacy groups, government, and insurers.

Methods: Writing the History of Disease

The condition that James Parkinson named the shaking palsy is unusual in having survived almost two centuries as a specific disease concept, and particularly for having survived for over a century without an agreed-on pathologic explanation: a characteristic and visible change in the body's tissues. Though the disease he described isn't exactly the same as what we now call Parkinson's disease, it is certainly close enough to be recognizable, whence his continuing fame for crystalline clinical description. But it would be simple to mistake it as identical when it is not. The disease concept has undergone substantial changes during those two centuries that are worth interrogating.

This is not to suggest that the shaking palsy, or Parkinson's disease, is merely a conceptual construction, untethered to anything in the natural world. Nor, conversely, is it to suggest that the disease exists as a distinct and immutable biologic entity. Rather, the premise here is something in between: that this particular disease has a biologic character *and* a negotiated definition, but that where it is deemed, at any given time, to end and another named condition to begin, as well as what it means in the culture, are in continual flux. The boundaries that are set around a disease to define it at a particular time—the conceptual separation of a specific constellation of signs and symptoms—undergoes constant modification, formed and reformed by the interplay of scientific knowledge and

social and cultural forces. The meaning of the named disease, and the boundaries placed around it, are part of a particular way of classifying suffering that inheres, for varied and substantive reasons, in a particular time and place.

Anyone attempting to write the history of diseases like Parkinson's disease that have some degree of continuity, as well as considerable discontinuity, over a long period of time must at some point address the relationship between the biology underlying the disease concept and the ideas that are chosen to describe that biology, all the while knowing that biological categories are themselves mutable constructions, dependent on changing ways of conceptualizing, and attributing importance to, different aspects of structure and function, anatomy and physiology, the microscopic and the macroscopic.

The delicate task for the historian is to examine the reasons the diagnostic category was constructed, and how the entity—some kernel of disease, usually biologically described, seemingly solid, but nonetheless also constructed, and around which the varying conceptual constructions revolve—is understood. Historians have in recent years developed several theoretical frameworks for thinking about disease concepts, as well as several approaches to analyzing non-textual sources, that offer guidance, and caveats, for approaching Parkinson's disease. These include social construction, the concept of “framing” of disease, the methods of cultural history and of microhistory, and the framework of the “biography of disease.”

The extremer versions of social construction that seem to deny any biologic reality and that view disease as completely socially constructed have long appeared problematic, for reasons that have been explored at length in the literature.⁹ But they do

⁹ Some indication of how programmatically the social constructionist approach has been employed, argued, and even distorted quite recently in discussions about disease concepts is evident in the remarks by

continue to exert power in discussions about the nature of specific diseases. In their extremer articulations, they run the risk of obscuring the genuine utility of the approach for broadening the scope of historical inquiry about the history of disease.

The idea that social construction cannot coexist with an acknowledgement of the material world actually caricatures the approach. David Harley once noted that thinking about social constructedness requires historians “to abandon the notion that medicine has an intellectual text and a social context.”¹⁰ In fact, anything named or categorized, including the biologic “reality” underlying a disease, is necessarily bounded and constructed by an idea, but that does not contradict its existence in the physical world; the

Margaret Pelling in *The Common Lot: Sickness, Medical Occupations and the Urban Poor in Early Modern England* (London and New York: Longmans, 1998), pp. 6-7: “In my own view, the social construction of disease, whatever its value as a defensive principle, cannot be applied universally. To put it baldly, even though any disease may be interpreted in a period-specific way in a given historical context, some diseases are more socially constructed than others. If it is applied universally, social constructionism runs into the danger of becoming anthropocentric. That is, it implies that no entities can be allowed an existence except as an extension of the human observer. Given the relatively brief span of recorded human consciousness, this seems radically to underestimate the potential for biological constancy (however interpreted). It is indeed of the first importance to respect the priorities and meanings expressed in a given historical period; some disease conditions certainly appear to have been entirely ephemeral and period-specific. But that should not mean, for example, denying that smallpox appears to have had a consistent character over many centuries, even though there were shifts in the way it was interpreted.” I quote here at such length because Pelling articulates the view of many others, specifically in seeing an inverse relationship between the extent to which a disease is socially constructed and the length of a disease concept’s survival, or the extent of its currently known or recognized biologic underpinnings. But, to counter Pelling with a disease prevalent in her own scholarly time period and that she discusses elsewhere, the English Sweat, for example, was ephemeral and period-specific and lacked (and lacks) a biologic explanation, but it was also unnervingly deadly in a very consistent way. In the context of the present work, it could be argued that it is precisely the diseases with long-surviving disease concepts and “clear” biologic underpinnings that continue to need scrutiny about their constructedness, because there is substantial risk that their biologic plausibility will exempt them from such scrutiny.

¹⁰ See David Harley, “Rhetoric and the Social Construction of Sickness and Healing,” *Social History of Medicine* 12 (3): 407-35, p. 415. On social construction in general, see Ludmilla Jordanova, “The Social Construction of Medical Knowledge,” *Social History of Medicine* 1995; 8(3): 361-81, and *History in Practice* (London: Arnold; and New York: Oxford University Press, 2000), passim; Peter Wright and Andrew Treacher, eds., *The Problem of Medical Knowledge: Examining the Social Construction of Medicine* (Edinburgh: Edinburgh University Press, 1982); Peter L. Berger and Thomas Luckmann, *The Social Construction of Reality: A Treatise on the Sociology of Knowledge* (New York: Doubleday, 1967); and Peter Burke, *History and Social Theory* (Ithaca: Cornell University Press, 1992). About microhistory and its relationship to biography, see Jill Lepore, “Historians Who Love Too Much: Reflections on Microhistory and Biography,” *Journal of American History* 2001; 88(1): 129-144, p. 144.

construction is part of the entity.¹¹ As Ludmilla Jordanova has observed, using social construction as a conceptual tool can help prevent the historian from making such artificial distinctions as those “between internal and external factors, content and context, good and bad science.”¹²

The concept of “framing” disease, illustrated in Charles Rosenberg and Janet Golden’s edited volume, *Framing Disease: Studies in Cultural History*, and described in Rosenberg’s introduction to the book, aimed in part to sidestep the stalemate that resulted from the clash between radical relativism and the kind of naïve realism that historically preceded it and that characterizes many historical accounts of Parkinson’s disease.¹³ The framing approach functioned simultaneously to retain social constructionism’s fruitful insights and methods, incorporating social, economic, and cultural tools of analysis, and to distance medical history from fruitless and excessively relativist theory. Rosenberg’s approach to framing disease posits, or at least strongly implies, that underlying the socially generated delineations of a disease is a real kernel of disease: that there is a “there there” around which disease concepts are negotiated, and that is reconfigured by

¹¹ On the subject of social constructionism’s necessary engagement with the material world, see Jordanova, “Social Construction,” p. 368: “[Social constructionism] is often caricatured by critics, who impute to it the claim that diseases are not real, and who associate it with a denial that science and medicine really work. The implication is that social constructionism deals with what is evanescent, epiphenomenal, precisely with what it not ‘real.’ There is no logical basis for these assertions. On the contrary, the material world is constantly shaped and interpreted through human actions and consciousness.” For an example of a non-meeting of extreme views about the ‘reality’ of disease, see, for example, Howard Markel’s response to François Delaporte: “The French social and cultural historian François Delaporte once declared, ‘Disease does not exist. . . What does exist . . . [are] practices.’ In discussions with other historians about the social construction of disease, I frequently lapse into my persona as physician and rejoin that disease is socially constructed until one happens to contract one.” Howard Markel, *Quarantine! East European Immigrants and the New York City Epidemics of 1892* (Baltimore: Johns Hopkins University Press, 1997), p. 182.

¹² On the inseparability of the physical world and the ideas used to conceptualize it, see Jordanova, “Social Construction,” p. 377: “[Social constructionism] is effective partly because it eschews the rigid polarities that weakened other approaches: here theories and archives are totally compatible, here ideas are not separated from practices, here an emphasis on process undercuts unproductive distinctions between internal and external factors, content and context, good and bad science.”

¹³ Charles Rosenberg, “Introduction: Framing Disease: Illness, Society, and History,” in Charles Rosenberg and Janet Golden, eds., *Framing Disease: Studies in Cultural History* (New Brunswick: Rutgers University Press, 1997), pp. xiii-xxvi.

scientific, social, and cultural forces.

The “framing” approach is not without its critics, as it can appear to make the tension between the reality and the constructedness of individual diseases disappear, with the word “frame” performing a sort of linguistic sleight of hand.¹⁴ Noting the continuing tensions within the historiography of disease concepts, Adrian Wilson observed that Rosenberg’s ‘new metaphor “frame”’ was every bit as “programmatically charged” as the discarded metaphor “construct,” and that according to the “framing” approach, certain kinds of historically-constructed diagnoses like cholera and tuberculosis were “assigned a timeless existence,” something Wilson aligns with the old naturalist-realist approach.¹⁵

In essay-length studies of disease like those found in *Framing Disease*, it is possible to conceal some problems with the approach, even if inadvertently. In longer studies, it is less easy to do so. The approach outlined in *Framing Disease* has recently been expanded in a group of full-length “biographies of disease” published by the Johns Hopkins University Press, and edited and introduced by Rosenberg.¹⁶ These books cover longer time periods than the essays included in *Framing Disease*, making some of the

¹⁴ See, for example, Roger Cooter, “‘Framing’ the End of the Social History of Medicine,” in Frank Huisman and John Harley Warner, eds., *Locating Medical History: The Stories and Their Meanings* (Baltimore: Johns Hopkins University Press, 2004), pp. 309-37, esp. p. 322, which portrays Rosenberg’s introduction of the frame as a political act that defused the polarizing effects of radical relativism and allowed for a pluralism unencumbered by a particular theoretical framework. ‘Framing’ in Cooter’s view, is in part simply social constructionism by another name.

¹⁵ Adrian Wilson, “On the History of Disease-concepts,” p. 281. Wilson’s critique applies equally to the passage by Margaret Pelling quoted above.

¹⁶ Rosenberg serves as series editor for the Johns Hopkins University Press’s “Biographies of Disease,” and his introduction serves as a collective forward. The books in this series include: Steven Peitzman, *Dropsy, Dialysis, Transplant: A Short History of Failing Kidneys* (Baltimore: Johns Hopkins University Press, 2007); Randall Packard, *The Making of a Tropical disease: A Short History of Malaria* (2007); David Healy, *Mania: A Short History of Bipolar Disorder* (2008); and Susan D. Jones, *Death in a Small Package: A Short History of Anthrax* (2010). See also the “Biographies of Diseases” series, edited by William and Helen Bynum, published by the Oxford University Press: Mark Jackson, *Asthma: The Biography* (Oxford: Oxford University Press, 2009); Christopher Hamlin, *Cholera: The Biography* (2009); Robert Tattersall, *Diabetes: The Biography* (2009); Sander Gilman, *Obesity: The Biography* (2010), and David Weatherall, *Thalassemia: The Biography* (2010).

limitations of the method-- of framing diseases as “framed,”¹⁷ so to speak, and of discussing diseases, even figuratively, as having biographies-- more apparent than they are in the essays. Like the problems with the concept of the frame in the earlier work, the problems with the “biography of disease” approach are evident in a passage from Rosenberg’s collective introduction to each book in the series: “Disease is . . . historically as much as biologically specific. Or perhaps I should say that every disease has a unique past. Once discerned and named, every disease claims its own history.”

This passage appears to elide the distinction between the disease and the disease concept, thus effectively obscuring the issue of what it means when a disease’s boundaries are unclear or when a disease is renamed, for example, or when an old disease name is applied to a new set of signs and symptoms, as occurred when Parkinson appropriated the name “shaking palsy” for a new disease. Wilson noted that the use of “framing” as a construct can “dehistoricize” a disease concept and implicitly grant a timeless quality to the way a disease is framed at a particular time, usually the present, thereby granting a timeless kind of reality to the “kernel” of disease discussed above. The same applies to the idea of biographies of diseases. At the very least the approach appears to exempt them from the analysis to which more obviously socially constructed entities, like many psychiatric diagnoses, would be subjected.

The image of “biography,” when used about diseases, is of course metaphorical. But the choice of this particular metaphor entails a problematic assumption: that the disease entity—the kernel of suffering—somehow has real and relatively unchanging boundaries the way a living organism would, and, operationally speaking, that it is an externally defined being that a historian can follow over time. This assumes that the “real”

¹⁷ Pace, Cooter, “Framing,” p. 310.

and underlying entity remains fixed, while it is only the frames—the socially constructed concepts, naming, therapeutic approaches, and so on—that historians can interrogate as changing under varying social and cultural conditions. The problem is the assumed, but never quite explicit, fixity of the usually biologic kernel of disease.¹⁸

This is not meant as criticism, however; it is meant to illustrate how conceptually tricky it is to write about the history of disease concepts while avoiding the Scylla of naïve realism and the Charybdis of a relativism so extreme that it threatens to disable writing about disease altogether. Whatever my minor reservations, the framing disease approach served to raise the level of discourse about the history of disease in a way that has stimulated the field enormously. In his more recent work on the subject of disease specificity and the diagnostic process, Rosenberg does not focus on the concept of “framing,” which helps a reader to avoid being distracted by whatever controversy the framework inspired. He has continued to attempt to untangle the meaning and consequences of the process of seeing diseases as specific and of giving them names. The “reality,” in time and space, of the disease entity, though important, is not the point of the discussion; regardless of their degree of biologic reality, the categorizing and consequent categories of disease continue to exert a kind of social and cultural force.¹⁹

Historians writing about disease concepts must face the difficult decision of how

¹⁸ In the full-length expansion of his essay about renal disease in *Framing Disease*, for example, Steven Peitzman grants the disease he describes a kind of agency, as if it were an entity capable of performing actions: “Following the work of series editor Charles E. Rosenberg, I discuss Bright’s Disease (under various names) as a “being” with a kind of “agency”—meaning, a power to do things in the world, as human subjects of actual biographies might. Similarly, I try to place the “life” of this disease within the changing customs, ideas, and practices of medicine and the broader world.” Peitzman, *Dropsy, Dialysis, Transplant*, p. xiv. See also Peitzman, “From Bright’s Disease to End-Stage Renal Disease,” in Rosenberg and Golden, eds., *Framing Disease*, pp. 3-19.

¹⁹ See Charles Rosenberg, “The Tyranny of Diagnosis: Specific Entities and Individual Experience,” *Milbank Quarterly* 2002; 80(2): 237-60, p. 240: “Philosophers and sociologists of knowledge have voiced an abundance of opinions regarding their [disease categories] epistemological and ontological status, but to the historian, disease entities have become indisputable social actors-- real inasmuch as we have believed in them and acted individually on those beliefs.”

to incorporate the current scientific views of the disease in question into their work. The risk of slipping into teleologic thinking and presentism looms large. On the one hand, the current view cannot be ignored as if it doesn't exist. On the other, it must be incorporated in a way that does not awkwardly intrude into, or even disrupt, a historical account.²⁰ This requires examining disease concepts as they manifested themselves in different historical periods, and including the 'present view' where it is relevant, but subjecting it to the same scrutiny, using the same analytic tools, as the views of the past. This prevents the present view from remaining uninterrogated and uninterpreted, as if its science were somehow less culturally influenced, and less requiring of analysis, than what came before.²¹ Such an approach allows the present view to contribute to the narrative while modulating the pressure on historians to write, in a contorted but seemingly historically/politically correct kind of way, as if the present did not exist and as if there has been no progress in the understanding and treatment of certain diseases when there has been. It is possible to eschew the great-man, celebratory-series-of-breakthroughs style of writing, while simultaneously acknowledging that, all things being equal, which they never are, it is actually probably better to contract tuberculosis today in Massachusetts, say, than it was in 1830.

²⁰ For a discussion of this issue, see David Harley, "Rhetoric," p. 421: "To interpret the semiotics of past medicine it is necessary to suspend belief in current disease categories, rather than translating." As an example of interpolation of the present view, see, for example, Peitzman's *Dropsy, Dialysis, Transplant*, which incorporates current scientific knowledge about kidney diseases by bracketing it and counterposing it to his historical text under the rubric, "A Later Perspective." The line between "a later perspective" and "the way the phenomena really are" is thin here, however; when such passages remain uninterpreted, the "later perspective" sections run the risk of becoming ahistorical.

²¹ See Ludmilla Jordanova, *History in Practice*, passim, for discussion of this kind of methodologic evenhandedness about different types of sources and time periods. Closely related is what she sees as the unhelpful distinguishing between "internalist" and "externalist" approaches: "Contained in this distinction is the assumption that what is 'social' is what is also 'external' to the heart of medicine and science, since their core is taken to be knowledge claims and these are assigned to the category non-social. Thus . . . something special is saved from the perceived taint of sociological analysis." Ludmilla Jordanova, "The Social Construction of Medical Knowledge," *Social History of Medicine* 1995; 8(3): 361-81, p. 368.

The task for the current work, then, is to employ the tools of cultural and social analysis to reexamine and reinterpret the history of Parkinson's disease, a history that has often been recounted in a somewhat linear and decontextualized fashion, mostly for a medical audience. Such tools allow the narrative to incorporate an analysis of social relationships, agenda, agency, and cultural meaning into the investigation of the disease's history, using those constructs to examine the changing cultural meaning of the disease and the relationships between sufferers and practitioners, as well as the continual reshaping of disease concept itself. This approach involves attending carefully to language, analyzing the rhetorical purposes and effects of the ostensibly value-free medical literature about a particular condition and revealing the cultural assumptions underlying it. Instead of simply taking the literature and images of current and past science at face value, this method uses it as primary source material for cultural history.²²

An example of this approach is found in Robert Aronowitz's essay about chronic fatigue syndromes in Rosenberg and Golden's *Framing Disease*.²³ Aronowitz's expansion of that essay, in *Making Sense of Illness*, avoids the pitfalls noted by Adrian Wilson.²⁴ Here, Aronowitz examines diseases like chronic fatigue syndrome that are only symptoms (without "objective" validation from x-rays, laboratory tests, etc.), on the

²² For discussions of what can be included in cultural history and the study of meaning, see, for example, Lynn Hunt, ed., *The New Cultural History* (Berkeley and Los Angeles: University of California Press, 1989); Mary Fissell, "Making Meaning from the Margins: The New Cultural History of Medicine," in Frank Huisman and John Harley Warner, eds., *Locating Medical History: The Stories and Their Meanings* (Baltimore: Johns Hopkins University Press, 2004), pp. 364-89; Jordanova, "Social Construction" and *History in Practice*; Peter Burke, *Varieties of Cultural History* (Cambridge and Oxford: Polity Press, 1970), especially "Strengths and Weaknesses of the History of Mentalities," pp. 162-182; and Peter Burke and Roy Porter, eds., *Language, Self, and Society: A Social History of Language* (Cambridge: Polity Press, 1991).

²³ Robert Aronowitz, "From Myalgic Encephalitis to Yuppie Flu: A History of Chronic Fatigue Syndromes," in Charles Rosenberg and Janet Golden, eds., *Framing Disease: Studies in Cultural History* (New Brunswick: Rutgers University Press, 1997), pp. 155-81.

²⁴ Robert Aronowitz, *Making Sense of Illness* (Cambridge, New York and Sydney: Cambridge University Press, 1998).

one hand and, on the other, conditions like hypercholesterolemia [high cholesterol] that have no symptoms and consist only of “objective” findings, such as “abnormal” laboratory tests. The first is illness without disease, one might say, and the second disease without illness. In both, the “real” kernel of the disease remains elusive.

In *Unnatural History*, his more recent book about breast cancer, Aronowitz examines the constructedness of breast cancer, a disease usually seen as a rather concrete and fixed entity, farther: he does not even assume that breast cancer now is the same disease, with the same kernel of biologic continuity, as in the early nineteenth century.²⁵ Aronowitz is not fixated on whether the biology is changing, though he thinks it often is. The point is that he thinks that it can: that it is not the timeless entity that Wilson objects to in the “framing” model. Aronowitz’s discussion of the pathologizing of the prodromal, and of not-yet carcinomas nonetheless called carcinomas, etc., makes this clear.

Aronowitz seems intentionally to undertake writing the history of conditions for which there is no narrative climax, no historiographic tradition celebrating the “eureka” moment when the “real” (molecular, anatomical, genetic, whatever) basis of the disorder was recognized, through use of which, as a “frame,” an examination of past efforts can be organized. His work tackles diseases of which the “reality” is still contested, and for which the essence, or the kernel, of the disorder retains its complex and contingent nature, right up to the present. His methods, especially those for examining diseases problematized by a persisting lack of “objective” (i.e., laboratory, x-ray, or pathologic) findings, offer a model of how one can write about diseases in the past and the present without becoming ahistorical about present scientific views, or intimidated by their

²⁵ Robert Aronowitz, *Unnatural History: Breast Cancer and American Society* (Cambridge and New York: Cambridge University Press, 2007), pp. 1-19.

technicality.

Aronowitz's model is especially helpful when one is examining a disease that affects both the mind and the body as Parkinson's disease does. While much of the literature interrogating how diseases are framed and named pertains to the realm of psychiatric disease, Aronowitz tackles disease of the body as well. And rather than skirting the more technical current medical literature in order to focus on the social and cultural aspects of a disease, he goes directly to the heart of the issue and shows how the technical *is* cultural. Paying unremittingly close attention to the multivocal significance of the individual words used in the medical literature, he incorporates into his analysis the biology of the diseases he describes without being overawed by it, reifying it, or dismissing it.

Three other books that explore the physical and the mental aspects of what are now, like Parkinson's disease, seen as chronic degenerative diseases of the nervous system are and Alice Wexler's two books about Huntington's disease and Jesse Ballenger's about Alzheimer's disease.²⁶ In both *Mapping Fate* and *The Woman Who Walked into the Sea*, Wexler incorporates cultural, social, political, economic, and technical analysis, as well as detailed patients' accounts. In the first, they fuel a narrative driven by her own experience, particularly the ultimately unresolved question of whether

²⁶ See Alice Wexler, *Mapping Fate* and *The Woman Who Walked into the Sea*. Wexler's original article about Huntington's disease in New York is not a first-person account and serves as a model for how to look at the changing social perceptions of an endemic disease: "Chorea and Community in a Nineteenth-Century Town," *Bulletin of the History of Medicine* 2002; 76: 495-527. Her second book on the subject, *The Woman Who Walked into the Sea*, incorporates and expands some of the material presented in the article. See also T. Jock Murray's history of multiple sclerosis, *Multiple Sclerosis: the History of a Disease* (New York: Demos Books, 2005). Though Murray does incorporate a patient's point of view (that of Heinrich Heine, who he thinks had multiple sclerosis), his work focuses more on discoveries than on the cultural contexts of the disease's history. Jennifer Elizabeth Clark has also written a doctoral dissertation on the history of amyotrophic lateral sclerosis: *Making ALS Matter: Disease Activism and Disease Identity in Amyotrophic Lateral Sclerosis*, (Cambridge: Harvard University, Ph.D. thesis, 2010).

she, the daughter of a sufferer, will be tested for the Huntington's gene. In the second, she describes the relationship to the disease of a particular community over time, a community that includes both kindreds of sufferers and their physician neighbor who observed them. While some idiosyncratic aspects of Wexler's personal account, particularly the memoir and the fantasies, cannot be adopted, her work is nonetheless a model for examining a disease that is both physical and mental: part of her account proceeds chronologically but without presentism, ranging from technical genetics to patients' terrors to institutional settings to advocacy groups' squabbles.

Like Aronowitz, Jesse Ballenger, in his work on Alzheimer's disease, relies heavily on deeply reading and on analyzing the language of the published literature, including popular media, but focusing on scientific publications.²⁷ Both Ballenger and Aronowitz use the cultural history of the fear of disease-- a fear that was actively elicited by segments of the culture-- and the concept of risk to structure their arguments. Analyzing the cultural meaning of the fear is an organizing principle for their work. Both authors tenaciously track the subtle metamorphoses in disease concepts over time by scrutinizing the published, usually scientific, literature, and attending to the nuances of changing language.

The shaking palsy that Parkinson described in 1817 is treated in most accounts as if it were unquestionably the same disease as what we call Parkinson's disease now. Admittedly, Parkinson's shaking palsy shares many features with the current concept of the disease, shared features that may partially account for the long survival of the disease concept. But Parkinson was emphatic about some characteristics, like the persistence of

²⁷ Jesse Ballenger, *Self, Senility and Alzheimer's Disease in Modern America: A History* (Baltimore: Johns Hopkins University Press, 2006).

tremor during sleep, and the sparing of “the intellects,” that are contradicted by the current view of the disease. And the current view includes important features that he did not describe, especially muscle rigidity, almost a *sine qua non* of the disease as it is currently understood. The twentieth-century discovery of the pathologic findings or “lesion” that “explains” Parkinson’s disease, while solving some problems, also poses others. Such answers tend to close doors on possible lines of inquiry, shutting out questions about outliers and boundaries, atypicality, and cultural meaning.²⁸ Such findings can appear to “fix” a disease when it is really still mobile.

For Aronowitz’s pathology-less diseases, this is neither an option nor a danger, and as a result the diseases remain fluid, and their cultural definition and shaping visible. For many current psychiatric conditions, such as bipolar disease and the so-called personality disorders for example, the contingency and constructedness are clearer and more accessible than with other categories of disease. Outside the historiography and literature explicitly describing psychiatry, however, Aronowitz’s diseases, more than any others I am aware of, continue to be mobile, with both their names and their manifestations, not to mention their “seats” and causes, unfixed. The recent appearance of various Parkinsonian disorders that are distinct from Parkinson’s disease, with names like “Parkinson’s Plus,” and the recent (re)inclusion of dementia into the disease concept remind one that the “it” to be “recognized” as Parkinson’s disease, like its cultural meaning, is an ever-moving target.

²⁸ By this I mean the discovery of each level of anatomic or physiologic evidence that appeared at one time to “explain,” finally, a disease. For Parkinson’s disease, the location of the problem—the insufficient production of dopamine by the *substantia nigra*-- is the current “explanation.” For an example of the history of a disease seen as completely transformed by a therapy (as is often the case with Parkinson’s disease before and after levodopa therapy), see Scott H. Podolsky, *Pneumonia Before Antibiotics: Therapeutic Evolution and Evaluation in Twentieth-Century America* (Baltimore: Johns Hopkins University Press, 2006).

Publishing the *Essay*

When James Parkinson published *An Essay on the Shaking Palsy*, he expressed trepidation about putting his ideas into print prematurely, before he could justify his claim that the shaking palsy was a specific new disease by demonstrating a consistent pathologic lesion that accompanied or explained it. The shaking palsy he described was not locatable in any particular tissue; rather, it was diagnosed solely through the observation of a person's physical movements. Its status as a 'real' disease was thus disconcertingly challengeable. Parkinson defended his premature publication by noting the disease's afflictiveness and long duration, expressing the hope that recognition of its early signs would permit early treatment and perhaps the stemming of the disease itself:

"It therefore is necessary, that some conciliatory explanation should be offered for the present publication: in which, it is acknowledged, that mere conjecture takes the place of experiment; and, that analogy is the substitute for anatomical examination, the only sure foundation for pathological knowledge . . . To delay publication [of the writer's opinions] did not, indeed, appear to be warrantable. The disease had escaped particular notice; and the task of ascertaining its nature and cause by anatomical investigation, did not seem likely to be taken up by those who, from their abilities and opportunities, were most likely to accomplish it. That these friends to humanity and medical science, who have already unveiled to us many of the morbid processes by which health and life is abridged, might be excited to extend their researches to this malady, was much desired; and it was hoped, that this might be procured by the publication of these remarks."²⁹

Parkinson's decision to publish when he did may have served other professional purposes as well, but his concern about the disease's inexorable and disabling course rings true. So does his apprehension about the critical reception his ideas would receive.

From the perspective of the present, when the signs and abnormal movements of Parkinson's disease are familiar and often depicted in the media, and when its reality as a

²⁹ Parkinson, *Essay*, pp. iii-iv.

disease is apparently self-evident, it would be easy to underestimate how unsubstantiated and speculative Parkinson's original claim, of having described a previously unrecognized but real disease, might have appeared at the time he presented it. But when his claim is examined within the context of how disease and diseases were understood when he published the *Essay*, it becomes clear that each part of his carefully constructed argument was disputable, as he himself notes. His concerns help to explain the meticulousness with which he composed and argued the parts of the *Essay* that followed the physical characterization of the disease.

Parkinson left no description of how he came to focus his attention on the odd movements of the shaking palsy, how he came to connect its signs and symptoms, or how he concluded that what he was seeing was a specific and previously unrecognized disease. No documents have yet been found that shed light on the early observations and dawning hypotheses that led him to see, and ultimately understand, the shaking palsy the way he did. Accounts of his life, including several full-length biographies, devote much space to the *Essay*, but none discusses either the observing and thinking that must have preceded it or the process of his writing it.³⁰ The sections of the biographies that describe the shaking

³⁰ See the four full-length biographical accounts of Parkinson: Morris, *James Parkinson*; Shirley Roberts, *James Parkinson (1755-1824)* (London: Royal Society of Medicine Press, 1977); Christopher Gardner-Thorpe, *James Parkinson, 1755-1824, and a Reprint of The Shaking Palsy by James Parkinson, Originally Published 1817* (Exeter: Department of Neurology, Royal Devon and Exeter Hospital, 1988); and W. H. McMenemey, "James Parkinson 1755-1824: A Biographical Essay," in MacDonald Critchley, ed., *James Parkinson (1755-1824): A Bicentenary Volume of Papers Dealing with Parkinson's Disease, Incorporating the Original 'Essay on the Shaking Palsy'* (London: Macmillan and Co., Ltd., 1955; and New York: St. Martin's Press, 1955). Most work in the history of neurology effectively does the same, discussing the *Essay* and the disease, but not the observations and thinking that prompted Parkinson to write the *Essay*. See, for example, Pearce, *Fragments of Neurological History*; Goetz, "The History of Parkinson's Disease," *Cold Spring*; and Goetz, Chmura, and Lanska, "The History of Parkinson's Disease: Part 2." This is also true for the section describing the shaking palsy and Parkinson's disease in Stanley Finger's detailed chapter about movement disorders, Finger, *Origins of Neuroscience*, pp. 223-8. Kenneth Laurence Tyler notes that the vivid pictures conveyed in the *Essay* appear "to be the work of someone who has extensive firsthand experience with the disease," but this is phrased in a way that suggests that the disease would

palsy begin with the publication of the *Essay* and partially explicate it; all introduce it only after its publication.

The unfortunate, and perhaps unintentional, implication, in many works on the history of neurologic disease, is that the *Essay* somehow emerged, fully formed, like Athena from the brow of Zeus, rather than that it represented the culmination of a long, arduous, and continuous process of honing skills and refining concepts. The very stylistic ease and clarity of the *Essay* may foster the sense that its conception was equally easy, and likewise that its formulation was unproblematic: that what Parkinson was describing was so indisputably a single real disease as not to require argument. His accomplishment is often represented in the medical literature as a combination of meticulous clinical observation and the seemingly inevitable ‘recognition’ of a disease of which the reality, integrity, fixity, and boundaries are self-evident, and that they would have been so at the time as well, as if the concept of the shaking palsy had simply been waiting, as Jacalyn Duffin once commented, to be picked out of the ground like an archeological shard.³¹ The disease we now call Parkinson’s disease seems so clearly recognizable that it is easy to

have been a recognizable entity, already classified as such, that one could have had previous experience with. Tyler, “A History of Parkinson’s Disease.”

³¹ “Indeed, the word discovery is problematic. Diseases are not immutable objects lying around waiting to be unearthed like potsherds in an archaeological dig. The so-called discoverer of a disease has actually ‘elaborated,’ ‘recognized,’ ‘described,’ or ‘invented’ a new way of understanding a problem that had previously been overlooked, or forgotten, possibly because it had not been considered a problem.” Jacalyn Duffin, *Lovers and Livers: Disease Concepts in History* (Toronto: The University of Toronto Press, 2005), p. 32. People writing about the history of neurologic disease have occasionally expressed surprise that it took so long for this seemingly obvious disease entity to be recognized. See, for example, the comment, “An unresolved issue of Parkinson’s disease (PD) is why such a distinct entity was not described until the classic essay in 1817 of James Parkinson . . .” R. Horowski, L. Horowski, S. Vogel, et al., “An Essay on Wilhelm von Humboldt and the Shaking Palsy: First Comprehensive Description of Parkinson’s Disease by a Patient,” *Neurology* 1995; 45: 565-8, p. 565. See also Leon Michaels, *The Eighteenth-Century Origins of Angina Pectoris: Predisposing Causes, Recognition, and Aftermath. Medical History*, Supplement 21 (London: Wellcome Trust Centre, 2001), p 3: “In 1817, James Parkinson described for the first time the “shaking palsy”, the neurologic illness to which his name was later attached. The absence of earlier clinical descriptions of this obvious and readily identifiable disability raises the possibility that Parkinsonism is a condition which only became manifest early in the nineteenth century.”

imagine that Parkinson's shaking palsy would similarly have been easily distinguishable from other kinds of abnormal movements in the early nineteenth century: that Parkinson simply saw it, 'recognized' it, and wrote about it.³²

As the following chapters will attempt to show, however, it was a substantial intellectual task, in the early nineteenth century, to see the separate manifestations of the condition as connected and as part of the same disease picture. The shaking palsy, as an idea or a reality, was not obvious, for some reasons specific to the condition, and for others connected to how disease and diseases were understood at the time Parkinson was writing.

In fact, several characteristics of the shaking palsy itself would actually have served to obscure the relationship between the signs and symptoms Parkinson was connecting. The first was their heterogeneity; that such varied signs and symptoms formed part of the same disease was not at all self-evident. Their connection was further confounded by the ubiquity and extraordinary variety of conditions that could make people move abnormally in this time period. Parkinson had not only to distinguish the manifestations of the shaking palsy from the effects congenital deformity, injury, surgical procedures, and all kinds of diseases, but also from the effects of cold, alcohol, madness, withdrawal from alcohol, and old age. Sometimes more than one of these conditions coexisted in the same person. At a time when so many people had so many varieties of impaired mobility, the signs and symptoms of the shaking palsy would have been much less distinct, in a sense-- less visibly separable from other conditions-- than they might appear later.

³² I am referring here to what current clinicians see as unambiguous cases of what is now known as Parkinson's disease; this is not to say that there are no ambiguous, possibly-Parkinsonian-appearing movement disorders at present, because they are common.

Second, manifestations of the disease appeared in an individual sufferer at very long intervals, making it difficult to envision them as part of the same process. In one of the six individual cases Parkinson describes, twelve years elapsed between the onset of one symptom and the onset of others.³³ Even at a time when it was thought that one disease could, under different circumstances, transform into any of several others, and that one kind of fever could metamorphose into another kind of fever, twelve years is a long interval between connectable symptoms.

Third, the relative, or maybe even extreme, rarity of the signs he was observing would have made it exceedingly difficult to see their pattern. The disease he was postulating was uncommon and occurred sporadically, rather than in any epidemic way that would assist an observer to group cases together; there were few sufferers to observe and to group. Admittedly, a historian is on shaky ground making a claim that a previously undescribed disease was rare at the time of its first description. How would one know? But the rarity of its component parts, which had previously been noted by Galen and Sauvages, among others, was acknowledged.

And last, the people in whom Parkinson observed the shaking palsy might also have had other problems that could have affected their gait and ability to move easily. Parkinson noted in the *Essay* that the shaking palsy was a problem of older people. At the time he was writing, even more than today, older people had accumulated illnesses and injuries that might have hobbled them. Not only did Parkinson have to recognize in them the particular constellation of abnormalities he included as part of the shaking palsy; he also had to screen out, visually and conceptually, any other movement problems or

³³ Parkinson, *Essay*, pp. 14-15: Case VI.

deformities that were simultaneously present. This would have posed a formidable challenge.

In the context of how physical movement and disease were understood in the early nineteenth century, Parkinson's *Essay* served to characterize a previously undescribed syndrome. But it also could be argued that his description served to extend the way a certain kind of disease, one that changed over time, accumulating symptoms, could be envisioned and classified, expanding the way the concept of disease specificity could be applied to the phenomenon of abnormal movement.

While Parkinson's concept of the shaking palsy depended for its *logic* on the new pathoanatomic way of understanding disease, at the time, his argument lacked the necessary pathoanatomic lesion to validate his claim. His grouping of symptoms depended rather on observation, using a different conceptual strategy to fill in the gap left by the elusive lesion. That strategy was thinking in cases, and in particular, thinking in case series. One could argue that this approach of thinking in case series ultimately expanded the way the pathoanatomic view of disease could be applied, extending it to diseases that were specific but grouped through clinical observation rather than pathoanatomy.

The acknowledgement that a group of signs and symptoms traveled together, so to speak, constituting a nameable syndrome, allowed the disease concept to survive for long enough for the anticipated but not-yet-found lesion to be discovered. In the case of the shaking palsy, this took an inordinately long time, and the disease concept survived for an unusual duration between its first identification by Parkinson and the discovery of a lesion that seemed to explain it. Thus, the argument Parkinson presents in the *Essay*

might be seen not so much as the recognition of an example of a kind of disease of which the category was already clearly in place, but as the constructing or refining of a new kind of disease concept.

The following chapters will explore, first, what might have spurred and allowed Parkinson to fix his attention on the nuances of abnormal movement with sufficient intensity to generate such a disease concept and such a book, and then, what allowed the disease concept, once it was clearly formulated, to survive and take root. If it is a mistake to think of the *Essay* as the description of obviously observable and ‘recognizable’ phenomena, it is equally unfruitful to view his formulation as the work of a particularly exceptional person working in anything like isolation, though this image persists in some of the literature about him. Rather, something about the circumstances in Parkinson’s life, environment, and medical practice allowed him to encounter enough disordered movements for him to be aware of them as a particular problem. Likewise, something led him seriously to ponder these abnormal movements, and something else permitted or encouraged him, in the cognitive sense, to see them.

Parkinson published and presumably wrote the *Essay* when he was, for his era, a relatively old man of sixty-two. One could argue that, in the context of how disease and diseases and abnormal movement were understood at the time, the *Essay* almost could not have been the work of a young practitioner; that, instead, it required long training in observation and all the considerable clinical experience Parkinson had garnered over a long career. It required the ability to observe natural phenomena with great accuracy and to discriminate finely among ostensibly similar things—skills he had honed not only in his medical practice but also through his other interests, including the detailed study of

fossils.³⁴ Equally important, it required the opportunity to observe and ponder a large number of people who moved abnormally, in one way or another, or even in many ways at the same time, as well as a few particular people whose abnormal movement persisted, but also changed, over years. It required him to have a enough mental flexibility to allow him to sort and rearrange both abstract categories and visual memories in order to connect and group together things he had seen in one time and place with things he had seen in others. And it required him to be familiar enough with the manifestations of existing categories of disease to recognize a condition that did not neatly fit them.

In each of the full-length biographies of Parkinson, discussion of the *Essay* forms a separate section or chapter, effectively bracketing his work on the shaking palsy off from other, possibly formative, aspects of his intellectual life.³⁵ Such bracketing has the perhaps unintended, but nonetheless probably misleading, consequence of suggesting that his thinking itself was compartmentalized. Part of the goal of the current work is to begin dismantling that compartmentalized way of viewing his intellectual life and to demonstrate, rather, that it was precisely *because* of the disparate streams in Parkinson's training, experience, and thinking that he was able to formulate and describe the shaking palsy as he did. Far from being compartmentalized, each of these streams was continually informing and refining the others, allowing him at different times in his life to perceive things in his environment and medical practice in ways that were different from the ways most people at the time were perceiving them, and, ultimately, to integrate nuanced

³⁴ During his life, and at least through the 1830s, Parkinson was famed more for his oryctological [paleontologic] work than for his medical work.

³⁵ The three full-length biographies, though different in tone, voice, and intention, are remarkably consistent in how they parse Parkinson's life and thinking, placing in separate chapters, and thereby compartmentalizing, what they see as separate components of his life: his medical and surgical work; his political activism; his work in geology and oryctology [paleontology]; his work in chemistry; and his writing of the *Essay*. Among his biographers, only McMenemey treats Parkinson's life chronologically, though he too keeps the domains of Parkinson's activity separate in his discussion.

impairments of posture and movement conceptually, thereby envisioning a disease that had not been so envisioned before. One crucial characteristic that these streams shared was the fostering and ultimately training, in specific different ways, of Parkinson's faculties of observation.

Throughout his life, Parkinson was deeply and simultaneously engaged in many intellectual, cultural, and social activities. He was trained as a surgeon-apothecary, but he was also an avid student and collector of fossils and a founding member of the Geological Society; he was the author of several meticulously illustrated oryctological (or paleontological) books; he wrote a detailed and respected handbook of chemistry; and, in the early 1790s, he was a political radical and the author of many pseudonymous political pamphlets and tracts.³⁶ Parkinson was a surgeon-apothecary, but his involvement in many of the cultural and intellectual networks in London, a culturally vibrant place, brought him into contact with influential physicians, natural historians, political activists, and various kinds of collectors, in a way that belies his image, in some accounts, as a provincial practitioner working more or less alone.³⁷

Crucially, Parkinson's formulation of the shaking palsy occurred in a particular contextual moment. Parkinson lived and worked in a small section of East London, but he was in no way insulated from the social and political upheaval surrounding him, including the tensions, hardships, and disruptions in international communication, including scientific communication, that attended the Napoleonic wars. Parkinson also

³⁶ See Appendix 1 for a chronologically organized list of Parkinson's publications; his political *nom de plume* was Old Hubert.

³⁷ See, for example, Roy Porter, "Parkinson's Disease (Paralysis Agitans): Social Section," in German E. Berrios and Roy Porter, eds., *A History of Clinical Psychiatry* (New York: New York University Press, 1995), pp. 113-122, p. 114: "Parkinson was thus no hobnobbing high-society physician or career scientist but a man of the people;" and p. 117: "Parkinson exemplified clinical investigation in the solitary manner[.]"

worked at a time of institutional and conceptual reorganization in British medical training, especially in London, where new, hospital-based models of medical education began gradually to dissolve the earlier institutional barriers between medical and surgical training. And it was a time of significant transformation in the way disease (in the sense of illness) and diseases (as specific entities) were understood. The older way of seeing disease as representing the derangement of a sufferer's individual constitution, a humoral imbalance, was slowly being superseded by, but still coexisting in a somewhat uneasy tension with, the newer pathoanatomic view of disease, in which a particular kind of lesion or tissue damage would result in basically the same disease in different people regardless of their individual constitutions.³⁸

As the following three chapters will show, a combination of things peculiar to his time and place probably enabled Parkinson to make the disease formulation that he did. The first two chapters will examine Parkinson's background and the context of his work. Chapter One will explore the education and training he acquired, particularly the training of his observational skills: first, his training as a surgeon-apothecary in London, a training that was relatively standard for his time; and second, the period of training with John Hunter that was less conventional.

Chapter Two will consider his varied medical and surgical practice, the character of the neighborhood he lived and worked in and, possibly most important, the people who inhabited the neighborhood and what it might have been possible to observe in them. Chapter Three will examine how he integrated the fruits of his two very different kinds of observational training in a way that enabled him to write about his observations and to

³⁸ This transformation was neither simple nor linear; the long coexistence of, and interaction between, these seemingly mutually contradictory ways of viewing disease will be further explored in Chapter 4.

publish his conclusions for a sophisticated audience in the context of London's larger intellectual networks. This chapter will also examine an early example of his published work and the observational techniques and methods for organizing information that it demonstrates, methods that he ultimately used in identifying the shaking palsy as a specific disease. In each of these first three chapters, the implicit focus will be on the movement disorders to which Parkinson ultimately turned his attention.

Chapter 4 will examine the *Essay* itself, examining its methods and reasoning in the context of the changing nosology of the time. Parkinson's identification of the shaking palsy did not, of course, change people's thinking immediately; its reception and ultimate incorporation into the corpus of medicine was a complicated process. Chapter 5 will explore how the *Essay* was initially received; how its contents were interpreted, made useful, and applied to clinical situations; and how the disease's boundaries were negotiated in the decades following the *Essay's* appearance in 1817. This requires examining how a disease concept proposed without a defining pathology, and with characteristics described in words rather than in other kinds of images, was communicated, circulated, elaborated on, utilized, and bounded over a period of decades.

This work will trace the disease concept of the shaking palsy during a period leading toward, but not through, the work of Jean-Martin Charcot roughly fifty years after the *Essay's* publication. In most accounts, Charcot's work on the disease is used as a kind of end point, so that the *Essay* and Charcot's lectures function as two major nodes in the history of Parkinson's disease. This approach deemphasizes what happened in between, in essence representing that period simply as an incubator of Parkinson's disease concept while it awaited clarification by Charcot, and during which not much

occurred. The concluding chapter aims to dispel that view, one that is somewhat Whiggish and that assumes and utilizes the work of a future consolidator in order to interpret what happened before him.

The work that went on after the publication of the *Essay*, but before the work of Charcot and his colleagues, is independently important enough to examine in its own right. This work functioned to keep the disease concept alive, and, paradoxically, both bounded and elastic, during a long period when it was called on to incorporate many different symptom complexes and types of cases, a period that extended not just until the time of Charcot and his colleagues, but also decades after Charcot's work, during the whole time that the disease remained a syndrome: a collection of signs and symptoms that traveled together but that continued to lack an explanatory lesion.

During these early decades, the disease concept was stabilized, as it was in the *Essay* itself, by the use of clinical cases and case series, a method Parkinson had immersed himself in early in his career. Viewing the disease concept this way places Charcot into continuity rather than making him an end point, or a node, or a master consolidator, or any of the other things he is represented to be in the literature. It puts the focus back on the disease itself, and on the question of what allowed the diagnosis, or the disease category, to emerge in the first place, and then to survive for so long when it remained so untethered to, and unexplained by, pathology and pathophysiology, even as those sciences themselves were undergoing rapid and substantial change.

CHAPTER ONE

James Parkinson's Early Training

For a man who published as much as James Parkinson did during his lifetime, and who came to be as well-connected as he was in the medical, political, and scientific worlds of late eighteenth- and early nineteenth-century London, the lack of documentary evidence that remains about his life and thought is surprising. Except for a few brief, businesslike letters mostly unrelated to medicine, there remain no unpublished writings that I am aware of: no casebooks; no diary; no random jottings or account books.¹ No one knows for sure what he looked like, as no portrait of him survives.² His published work is considerable, however, and spans several fields.³

Drawing on his published works and on documents that mention him in collections of parish, court, and other institutional records, three physicians have published full-length biographies of Parkinson, and several others have published shorter

¹ Although one of Parkinson's biographers, William McMenemey, stated that only one unpublished letter of Parkinson's remains, several more have been located since he wrote about Parkinson. W. H. McMenemey, "James Parkinson 1755-1824: A Biographical Essay," in MacDonald Critchley, ed. *James Parkinson (1755-1824): A Bicentenary Volume of Papers Dealing with Parkinson's Disease, Incorporating the Original 'Essay on the Shaking Palsy'* (London: Macmillan and Co., Ltd., 1955; and New York: St. Martin's Press, 1955), pp. 1-143, p. 1. Christopher Gardner-Thorpe lists eight letters pertaining to geological specimens and fossils, some of which are bound in a volume belonging to the Wiltshire Archaeological and Natural History Society. Christopher Gardner-Thorpe, *James Parkinson, 1755-1824, and a Reprint of The Shaking Palsy by James Parkinson, Originally Published 1817* (Exeter: Department of Neurology, Royal Devon and Exeter Hospital, 1988), pp. 53-5. The Royal College of Surgeons has several letters, mostly relating to fossils, and one that addresses the case of a man who survived being impaled through the chest by a cart shaft. Royal College of Surgeons Archive, MS0128.

² Though images purporting to represent Parkinson abound, the only known contemporary reference to his appearance is the brief description by Gideon Mantell, a late-life acquaintance, in a book published decades after Parkinson's death, of a man "rather below the middle stature, with an energetic, intelligent and pleasing expression of countenance and of mild and courteous manners." Gideon Mantell, *Pictorial Atlas of Fossil Remains* (London: H. G. Bohn, 1850), p. 12. This description is quoted in most extended accounts of Parkinson's life, but its context and conventionally laudatory language render it slightly suspect.

³ See Appendix I for a time line and list of Parkinson's known publications.

sketches.⁴ Except when noted otherwise, the brief account of Parkinson's life presented here summarizes material found in these biographies, which, although speculative in places, are largely in agreement about the basic facts of his life.

James Parkinson was born in 1755, in London, to John Parkinson, an apothecary, and his wife Mary. About his early education the only thing clear is that it was very good; he emerged highly literate. He probably attended grammar school, although one biographer conjectures that he was educated at home.⁵ He certainly learned Latin well and mastered at least some Greek, and in his later writings, he was able to cite and comment on untranslated sources in French and German. Somewhere along the way, he also became proficient enough in shorthand to take verbatim notes in medical lectures.⁶

One of the striking things about Parkinson is in how small a geographic area in East London he spent all but a few months of his life. He was born, spent his youth, performed his apprenticeship, practiced medicine and surgery, and died all in the village

⁴ The first modern account of Parkinson's life to appear in English was "James Parkinson," *Bulletin of the Johns Hopkins Hospital*, February 1912; 23(252): 33-45, by Leonard Rowntree, a physician at Johns Hopkins Hospital. Rowntree's chronological summary of Parkinson's life quotes often from Parkinson's published works, but it cites no other sources. Because subsequent biographies often cite Rowntree as their source, his unsourced findings have become accepted sources themselves. Rowntree did extensive primary research in East London, scouring parish records, finding family gravestones, locating some of the obscurer of Parkinson's writings, including those written under a pseudonym, and publishing what may be the only photograph extant of the now-demolished house in London where Parkinson lived and worked. He simply did not list his sources.

The most detailed biography is by A.D. Morris, a physician who worked in some of the same institutions, by then quite transformed, in which Parkinson had worked. A.D. Morris, *James Parkinson: His Life and Times*, edited by F. Clifford Rose (Boston, Basel and Berlin: Birkhäuser, 1989). Morris spent decades collecting information for this biography but did not live to complete it. After his death, F. Clifford Rose concluded, edited, and published it, adding a section called "Parkinsonism Since Parkinson." Rose's account of the disease's history, which he divides into six periods, and its landmarks has become almost standard. Other biographies include Shirley Roberts, *James Parkinson (1755-1824)* (London: The Royal Society of Medicine Press, 1977); Gardner-Thorpe, *James Parkinson*; and W. H. McMenemey's slightly briefer work, "James Parkinson."

⁵ Shirley Roberts interprets the absence of records about formal education to indicate schooling at home. It is likely, however, that John Parkinson's practice would have made it difficult for him to spare time for systematically educating his son, and Parkinson was very well educated. Roberts, *James Parkinson*, p. 4.

⁶ Use of shorthand was not uncommon at this time. Roberts suspects that Parkinson's shorthand method was that of Dr. John Byrom, *The Universal English Short-Hand: or, the Way of Writing English, in the Most Easy, Concise, Regular, and Beautiful Manner* (Manchester: Printed by Joseph Harrop, 1767). Roberts, *James Parkinson*, p. 5.

(or liberty) of Hoxton, and most of his other work was performed within the slightly larger square mile or so of the parish of St. Leonard's. He was christened and married in the parish church, St. Leonard's of Shoreditch, and buried outside it. He served at various times as a member of the parish council, guardian of the poor, and parish doctor. He lived and worked at 1 Hoxton Square, overlooking one of the older squares in London.

During Parkinson's lifetime, Shoreditch was, as it had long been, a place of extremes. Located about one half mile from the northern boundary of the City of London and often described even at the time as a suburb, it was in some places charmingly rural, especially toward the north, and in other places dirty, congested, and dangerous. With London's increasingly industrialization in the late eighteenth and early nineteenth centuries, immigrants arriving at the nearby port, migrants from other counties, as well as large numbers of native Londoners, moved to what was then London's periphery, including Shoreditch, making for a diverse and concentrated population. Shoreditch became the home of ever larger numbers of artisans, weavers, brewers, and small manufacturers.⁷

The paradox of Shoreditch's simultaneous bucolic charm and crowded poverty persisted, though the poverty became increasingly predominant over the course of Parkinson's life. Grand and even palatial buildings lined some of the main streets, but along the smaller streets, poorly built and over-crowded tenements housed the poor, often

⁷ See M. Dorothy George, *London Life in the Eighteenth Century* (London: Kegan Paul, Trench, Trubner & Co. Ltd., 1925); and Morris, *James Parkinson*, pp. 1-9. For a broader view of Hoxton in the context of its development, changing character over time, and relationship to the rest of London, see Andy C. Pratt, "Urban Regeneration: From the Arts 'Feel Good' Factor to the Cultural Economy: A Case Study of Hoxton, London," *Urban Studies* 2009; 46: 1041-62: "Hoxton's history is an example of the consequences of unconstrained growth and rapid urbanisation. The massive 19th century imperial expansion of the City generated manufacture and trade commonly located in the workshops of Hoxton; it was a massive employment generator, attractor of migrants and subject to severe overcrowding and unsanitary conditions," p. 1046.

journeyman laborers and their families. For many of their inhabitants, the site was one of withering poverty and near-starvation. Official complaints were recorded as early as the late sixteenth century about the crowded tenements in Shoreditch, twenty people to a building, and also about the unsavory nature of the people crowding them.

The concentration of not-quite-respectable people and activities in Shoreditch was sometimes attributed to its peripheral status; being outside the City of London, it was not subject to some of the City's stricter regulations. Shoreditch was, perhaps in consequence, the site of some of London's first theaters and was known in the sixteenth and seventeenth centuries for its actors; it was also the site of a great deal of crime.⁸

In 1771, at age fifteen or sixteen, Parkinson was apprenticed to his father, John, a surgeon-apothecary who practiced in a small outbuilding next to the family's home in Hoxton Square. Parkinson would thus have grown up in the atmosphere of a quite urban and probably busy practice, and even before he was officially apprenticed would have been familiar with its culture, routines, and remedies. Surgeons and apothecaries often took their sons and nephews as apprentices and, when the apprenticeship was completed, were joined by them in practice, a tradition that produced many medical dynasties in eighteenth- and nineteenth-century Britain. The Parkinsons built one such practice; James Parkinson's son and grandson later joined the practice of Messrs. Parkinson & Son, which was in existence until the mid-nineteenth century.

⁸ See, for example, Elaine Murphy, "The Mad-house Keepers of East London," *History Today*, September 2001: 29-35, especially pp. 31-32, about the contradictory qualities of Shoreditch and about the rapid deterioration of some of the previously grand buildings there. For a textured overview and classic analysis of the lives, living environments, wage scales, and vulnerability to economic trends of the working poor of East London during the long eighteenth century, see George, *London Life*, "Housing and the Growth of London," pp. 63-107, especially pp. 88-9; "The People and the Trades of London," pp. 155-213; "The Uncertainties of Life," pp. 269-322. For a somewhat different perspective on the experience of poverty in eighteenth-century London, one that highlights the resourcefulness of the poor and the success of their strategies for survival, see Tim Hitchcock, *Down and Out in Eighteenth-Century London* (London and New York: Hambledon and London, 2004).

John Parkinson appears to have modeled a kind of upward mobility and self-bettering through education. At age 39, after years of practice as an apothecary, he took the examination conducted by the Company of Surgeons and was awarded the Company's Diploma in February 1765; he had thus officially been a surgeon-apothecary for several years before taking on his son as an apprentice.⁹

James Parkinson never attended university or obtained the M.D. degree required for becoming a physician; instead, he took the apprenticeship route of a surgeon-apothecary. He was thus not, technically speaking, a physician, though he is often described as a physician in the medical-historical literature. This distinction had important implications for the nature of his training and practice, and for the kinds of work he would ultimately be called upon to perform.

Parkinson was educated during a time of particular ferment and transformation in the medical world of London, when the barriers between surgical and medical practice and training were narrowing, and in which previously distinct boundaries, including those separating the types of work and the social status of physician and surgeons, were beginning to blur. Many of Parkinson's contemporaries who were apprenticeship-trained surgeons later went on to obtain medical degrees, often at Edinburgh, thereby becoming fully-fledged physicians; John Coakley Lettsom was one London physician who had done so. Others attended series of courses but did not seek or obtain a degree. Parkinson

⁹ Roberts, *James Parkinson*, p. 7. John Parkinson may have had apprentices other than his son, but I have found no evidence of that. See P. J. Wallis and R.V. Wallis, *Eighteenth Century Medics (Subscriptions, Licenses, Apprenticeships)*, 2nd editions (Newcastle Upon Tyne: Project for Historical Bibliography, 1988). Nor is there mention of James Parkinson's apprenticeship with his father, though both are listed as practitioners. When fathers took their sons on as apprentices, indentureship documents were still required, but premiums were not paid. See Joan Lane, "The Role of Apprenticeship in Eighteenth-Century Medical Education in England," in W. F. Bynum and Roy Porter, eds., *William Hunter and the Eighteenth-Century Medical World* (Cambridge: Cambridge University Press, 1985), pp. 57-103, particularly pp. 58-61.

did not seek a medical degree outside London, nor did he ever hold either a university or a hospital post.

No institution in London granted the M.D. degree at this time, but beginning in the mid-eighteenth century, through training in hospitals and through privately offered courses, London's surgeons and surgeons-in-training could also obtain a more substantial theoretical medical education than had been available to them before. These courses, some of which were offered by physicians and surgeons with appointments to hospitals, ranged from practical courses in anatomical dissection to lecture series on particular topics in such subjects as anatomy, medicine, surgery, physiology, *materia medica*, obstetrics, natural philosophy, botany, and chemistry. These private courses provided surgeons with a kind of theoretical education that had been previously been available only to physicians through university training. Thus, at a time when surgical ideas, particularly about the localization of disease, increasingly permeated the practice of medicine, medical theory also came increasingly to inform surgical practice.¹⁰

This is not to say that the education of physicians and surgeons were yet comparable, as they were not; rather, it is that their domains had begun to converge. At a time when the content of the university education of physicians was often criticized as

¹⁰ Several historians of medicine have explored in depth the eighteenth-century commingling of the medical and surgical in new kinds of educational environments, practice settings, and professional relationships, especially in London. On the dynamic nature of this medical culture, see Susan Lawrence, *Charitable Knowledge: Hospital Pupils and Practitioners in Eighteenth-Century London* (Cambridge: Cambridge University Press, 1996); Christopher Lawrence, ed., *Medical Theory, Surgical Practice: Studies in the History of Surgery* (London and New York: Routledge, 1992); Roger French and Andrew Wear, eds., *British Medicine in an Age of Reform* (London: Routledge, 1991); Irvine Loudon, *Medical Care and the General Practitioner, 1750-1850* (Oxford: Oxford University Press, 1986); William F. Bynum and Roy Porter, eds., *William Hunter and the Eighteenth-Century Medical World* (Cambridge: Cambridge University Press, 1985); and Ian Burney, "Medicine in the Age of Reform," in Arthur Burns and Joanna Innes, eds., *Rethinking the Age of Reform: Britain 1780-1850* (Cambridge: Cambridge University Press, 2003), pp. 163-81. For a classic account of the Continental roots of these transformations, particularly the influence of surgery on medical theory, see Owsei Temkin, "The Role of Surgery in the Rise of Modern Medical Thought," *Bulletin of the History of Medicine* 1951; 25: 248-259.

too remote, elite, and abstract to be useful in daily practice, the more physically grounded training of the surgeon, now increasingly informed by medical theory, could provide a more practical kind of education for a practitioner grappling daily with sick and injured patients.¹¹ The fact that Parkinson trained as a surgeon-apothecary means that his early exposure to medicine provided more hands-on experience of both bodies and medicines than it would have been had he gone to university to pursue a medical degree.¹²

Because Parkinson never directly recounted his experiences in his published work, it is impossible to know what, exactly, he was taught or learned during his apprenticeship, particularly the extent to which his apprenticeship might have helped form his early thinking about problems with gait or abnormal physical movement. But it is fair to assume it was strong on anatomy; in 1775-6, toward the end of his son's apprenticeship, John Parkinson served as Anatomical Warden of the Company of Surgeons, where his responsibilities included demonstrating the dissected bodies of executed criminals in anatomy lectures to students at the Surgeons' Hall.¹³

Though the idiom "general practice" was not used until the nineteenth century, practices like John Parkinson's were general practices *avant la lettre*, combining the responsibilities of an apothecary (preparing and selling medicines and maintaining the

¹¹ See, for example, Loudon, *Medical Care*, p. 39: "[T]he London College of Physicians placed all the weight on Latin and a knowledge of the classical authors, and none on practical experience."

¹² The apparent differences in training at this time between those possessing M.D. degrees and those not possessing them becomes further muddled by the fact that M.D. degrees could be purchased by people who never attended a university. See Loudon, *Medical Care*, p. 39: "[The case of Edward] Jenner [of vaccination fame] illustrates the ease with which a provincial practitioner could raise himself to the status of a physician through the MDs of Aberdeen or St Andrew's without ever setting foot in Scotland. All that was required was a modest fee and the recommendation of two colleagues for the MD to come back in the post . . . [I]n Jenner's day there was something to be said for a system which, in theory at least, believed that proven clinical ability was the important criterion."

¹³ This kind of carefully programmed demonstration of anatomy, or prosection, was performed for the students; they did not perform the dissections themselves. See Cecil Wall, *The History of the Surgeons' Company, 1745-1800* (London: Hutchinson's Scientific & Technical Publications, 1937), p. 231; and Roberts, *James Parkinson*, p. 35.

shop that sold them) with the responsibilities of a surgeon (making home visits to sick patients; tending to conditions that required manual treatment, including fractures, wounds, ulcers, dislocations, disorders of the teeth, skin and eyes; delivering babies; treating venereal disease) as well as the responsibilities customarily reserved for physicians (diagnosing and treating medical illness).¹⁴ Surgeon-apothecaries prescribed as well as compounded medications for internal disorders, though prescribing was traditionally, and formerly by law, the purview of physicians.¹⁵

Surgeons in practice could be called upon to operate on people after accidents, staunching bleeding, amputating mutilated limbs, or trephining fractured skulls. They remove bladder stones (which were common, even in children), repaired aneurysms, cauterized bleeding blood vessels, removed cancerous breasts, and operated on incarcerated hernias, among other procedures. But only a very small fraction of their work involved performing operations. Most of their surgical work was non-operative,

¹⁴ See Loudon, *Medical Care*, p. 1. Loudon finds the term “general practice” first used in 1809 and its common use starting in the second and third decades of the nineteenth century. The texture of the day-to-day practice of more mid-level practitioners, including apothecaries, provincial surgeons, and surgeon-apothecaries, and the nature of their training has, until fairly recently, remained less visible than the writings and practices of university-trained physicians on the one hand, and of the so-called irregular practitioners and the medical marketplace on the other. For work on these mid-level practitioners, see, besides Loudon’s work, Anne Digby, *Making a Medical Living: Doctors and Patients in the English Market for Medicine, 1720-1911* (Cambridge: Cambridge University Press, 1994). About the late-eighteenth and early nineteenth-century transformations in the education of British practitioners, including apprenticeship, see Thomas Bonner, *Becoming a Physician: Medical Education in Great Britain, France, German, and the United States, 1750-1945* (Oxford: Oxford University Press, 1995); Susan Lawrence, *Charitable Knowledge*; Christopher Lawrence, ed., *Medical Theory, Surgical Practice*; French and Wear, eds., *British Medicine in an Age of Reform*; and Bynum and Porter, eds., *William Hunter*. Bonner notes that “By the end of the [eighteenth] century, preparation for medical practice in Great Britain was increasingly confused: a mixture of old traditions, new initiatives, and privileged corporations in a murky stew of established universities, hospital medical training, private courses, apprenticeships, and separate licensing authorities for physicians, surgeons, and apothecaries. Even before 1800, English medical education had embarked on a course that, in addition to its traditionalism, set it apart from the continental schools,” p. 16.

¹⁵ See Loudon, *Medical Care*, pp. 19-28, concerning the scope of practice of the surgeon-apothecary and the negotiations and battles between physicians and apothecaries over the right to prescribe medicines. In practices like Parkinson’s at this time, surgeon-apothecaries were in fact prescribing as well as preparing medicine without much interference, and they frequently collaborated with physicians, calling them in for consultation about worrisome cases.

including dressing wounds, setting fractures, and treating dislocations, and much of their time went to treating and prescribing for internal illnesses.¹⁶

Irvine Loudon has attempted to illuminate the quotidian practice of general practitioners at this time by examining their casebooks and the records of urban dispensaries, and then tabulating the medical and surgical problems they list.¹⁷ Tellingly, physical disabilities and problems with mobility do not appear on these lists per se; they seem not to have been viewed as medical or surgical diagnoses suitable for treatment as such. Surgeon-apothecaries and dispensaries clearly saw and treated people with all kinds of disabilities and abnormal mobility, but such problems usually remained unmentioned, and were probably subsumed under other categories.¹⁸

The several manuals published between 1770 and 1810 that address how best to prepare students and apprentices for medical practice, particularly for practice as a surgeon-apothecary, indicate the scope of what a surgeon-apothecary was expected to know and be capable of performing. These manuals have in common a somewhat abstract

¹⁶ Loudon, *Medical Care*, p. 73.

¹⁷ Surgeon-apothecaries treated typhus, measles, quinsy, toothache, smallpox, fevers, phthisis, skin eruptions, scrofula, warts, nosebleeds, sore throats, venereal disease, boils and abscesses, leg ulcers, swelling and edema, bruises and sprains, burns, insect stings, dysentery, bleeding from the intestines, convulsive fits, croup, and rheumatism, among many other conditions. See Loudon, *Medical Care*, pp. 54-99. Some of the differences Loudon notes over time may be attributable less to true changes in incidence and prevalence than to changing ways of classifying disease. See also the list of all medical conditions treated and described in John M. T. Ford, *A Medical Student at St. Thomas's Hospital, 1801-1802: The Weekes Family Letters* (London: Wellcome Institute of the History of Medicine, 1987), pp. 11-12. For the purposes here, the important thing to note is that no problems characterized as disorders of movement or disability reached any of Loudon's or Ford's lists.

¹⁸ In the sample of first-person accounts of apprenticeship and hospital training in this period that I have read, I have found no references to disorders of movement being seen or treated as medical problems or conditions *per se*, except for the sudden paralysis occasioned by apoplexy. These accounts include those of John Green Crosse, John Coakley Lettsom (all cited above), and the letters of Alexander Fothergill (1732-1813) to James Woodforde. See Christopher Lawrence, ed., *"Take time by the Forelock": the Letters of Anthony Fothergill to James Woodforde 1789-1813 Medical History* (London: Wellcome Institute for the History of Medicine, 1997). Woodforde's half of the correspondence does not survive, but Fothergill was conscientious about responding to his letters point by point, and disorders of movement are absent from these responses. Though these works represent only a small sample of such all first-person accounts (most are in archives, and many are fragments), the consistency is telling.

and almost formulaic character, specifying not only the content the apprentices should master, but also the proper preparation for apprenticeship: acquiring some Latin and studying natural philosophy, botany, anatomy, and chemistry, among other subjects. They also address the qualities of character requisite for the profession; they have a strong moral dimension.¹⁹

These manuals often specify readings for the apprentices and the order in which they should be read, lest the material be absorbed incorrectly or misunderstood; the implication is that the reading will form thinking as well as provide information, and that there is a right way to do this.²⁰ Their agreement about appropriate readings is striking. Works by William Cullen, Gerard van Swieten, Albrecht Haller, and Alexander Monro [Primus] appear consistently, suggesting that they would have been familiar to apprentices in Parkinson's cohort. Relevant to the understanding of physical movement, aside from the general focus on anatomy, is the recommendation in so many manuals of James Douglas's work on the muscles.²¹

¹⁹ For examples of these apprenticeship manuals, see, for example, James Makittrick [James Makittrick Adair], *Commentaries on the Principles and Practice of Physic. Illustrated by pathological tables and Practical Cases. Being An Attempt, on a New Plan, to Connect the Several Branches of Medicine, and to Place the Practice of it on a Rational and Solid Foundation. To Which is Prefixed, an Essay on the Education and Duties of Medical Men.* (London: Printed for T. Becket and Co.; and J. Balfour, at Edinburgh, 1772); Thomas Withers, *A Treatise on the Errors and Defects of Medical Education: in Which are Contained Observations on the Means of Correcting Them* (London, 1794); and James Lucas, *A Candid Inquiry into the Education, Qualifications, and Offices of a Surgeon – Apothecary; the Several Branches of the Profession Being Distinctly Treated On, and Suitable Methodical Forms Annexed, Besides Various Other Topics connected with the Principal Office are also Subjoined* (London: Cadell and Davies, 1800).

²⁰ In the letters of advice about medical training that Anthony Fothergill wrote to James Woodforde, he advised, "I must caution you against indiscriminate reading which, as you justly observe, bewilders young students and leads to confusion. Nor is this all; erroneous ideas are often imbibed at an early period, and it requires no small trouble and mortification afterwards to 'unlearn what has been learnt amiss.'" Christopher Lawrence, "Take time by the Forelock," p. 3.

²¹ See Appendix II, below, for further discussion of the reading recommended for apprentices in apprenticeship manuals.

Instructional guides, of course, are prescriptive rather than descriptive in nature; their recommendations represent an ideal. The disparity between what they suggest and what the apprentices of Parkinson's generation actually did remains murky but was probably substantial.²² At the other end of the spectrum from formulaic manuals are the highly individual accounts by the apprentices themselves, of which only a few survive. Even in these accounts, however, the texture of an apprentice's ordinary day remains provokingly elusive.²³ This is partly because the practices they entered were so varied and because their masters differed so much in skill, focus, and willingness to teach. But it also reflects the apprentices' natural tendency to highlight the unusual aspects and cases of a given day, thereby obscuring the encounters with patients that seemed too routine to note. It is the most mundane of activities that the historian would like to probe, in order to understand the nature of daily practice, but their very ordinariness kept them from being recorded.²⁴

²² Complementary to the more formal manuals of instruction are the letters that Anthony Fothergill, an older Edinburgh-trained physician, wrote to James Woodforde before and during Woodforde's training, which was a bit later than Parkinson's. In a friendly, colloquial, and occasionally pedantic and moralizing way, these letters offer up-to-date advice not only about what someone studying medicine should study and read but also about how to optimize chances for a successful practice. They juxtapose the practical and financial with quite densely theoretical interpretations of recent publications in medicine, chemistry, and other subjects. Woodforde's mother was married to the brother of Parson Woodforde, the famed diarist; the marriage was stormy, however, and "there is considerable doubt as to who his father was." Parson Woodforde never referred to James as his nephew. Lawrence, *Take Time by the Forelock*, p. xvi.

²³ Published apprentices' diaries include that of Richard Kay, who studied forty years before Parkinson and in a provincial setting somewhat dissimilar to Parkinson's London: William Brockbank and Fred Kenworthy, eds., *The Diary of Richard Kay, 1716-51: of Baldingstone, Near Bury, a Lancashire Doctor: Extracts* (Manchester: Published for the Chetham Society by Manchester University Press, 1968); the excerpted and edited diary of John Green Crosse, who studied a generation after Parkinson in Bristol: V. Mary Crosse, *A Surgeon in the Early Nineteenth Century: The Life and Times of John Green Crosse* (Edinburgh and London: E. & S. Livingstone Ltd., 1968); and the memoir by John Coakley Lettsom about his early years, John Coakley Lettsom, "Recollections and Reminiscences," in Christopher Lawrence and Fiona A. Macdonald, eds., *Sambrook Court: The Letters of J. C. Lettsom at the Medical Society of London* (London: The Wellcome Trust, 2003).

²⁴ See Susan Lawrence, *Charitable Knowledge*, pp. 4-5, for a discussion of the implicit importance for creating new knowledge of the seemingly routine and ordinary: "To me, one of the most interesting problems in the history of science and medicine is to understand precisely how new knowledge and methods become boring, such fundamental aspects of daily life that they are not only unquestioned, but

Apprentices' accounts do ultimately reveal something about routine activities by describing those activities when they were encountered for the first time and had not yet become ordinary. An extended account, or a diary kept over a long period, can thus give hints about the range of an apprentice's activities and the medical conditions and injuries he might have encountered. In a casebook he kept during his apprenticeship, John Green Crosse (1790-1850), for example, noted his encounters with "fractures in all parts of the body," dislocations, gunshot wounds, intestinal obstruction, tape worms, burns and scalds, difficult births, congenital malformations, convulsions, gout, accidents, loss of hair from the whole body, fevers, hydroceles, strangulated hernias, and retention of urine.²⁵

Being bound by their indentures, eighteenth-century apprentices were very much subject to their masters, and apprenticeships ran the gamut from true mentorship to servitude; the quality of their training depended on their masters' knowledge and willingness to provide instruction. While surgeon-apothecaries' apprentices were probably rarely subjected to the kinds of outright abuse that apprentices to other trades endured, they were often more exploited as sources of cheap labor than instructed as students.²⁶ Some of their accounts persevere on this exploitation, protesting about the menial and repetitious nature of the tasks they were required to perform, particularly the

also scarcely worth mentioning or even thinking about. To appreciate the potency of standard methods of inquiry and, more importantly, of uncontroversial knowledge, demands that these be investigated and explained closely just when they seem to have the least active roles in prompting new insights."

²⁵ Crosse, *A Surgeon*, p 16.

²⁶ See, for example, Loudon, *Medical Care*, pp. 44-48, which describes what could, at one extreme, be "a miserable period of slavery," p. 48. See also Lane, "The Role of Apprenticeship," pp. 58-61. Lane suggests that surgeon-apothecaries' apprentices were somewhat protected from outright abuse by the high fees that were paid for their training. On the harsh treatment of many mid-eighteenth-century London apprentices, see George, *London Life*, pp. 4-5, and chapters IV and V, and her *England in Transition: Life and Work in the XVIIIth Century* (Harmondsworth and Baltimore: Penguin Books, 1931), chapter VII, "Child Labour and Apprenticeship."

tedious preparation of remedies, long after they had become adept at preparing them.²⁷

This situation was reportedly improving by the end of the eighteenth century, however, with masters assuming more responsibility for providing their apprentices with a coherent (sequential) training.²⁸

Though Parkinson does not explicitly mention what he learned from his father, there are hints about how his father might have influenced his thinking, aside from his likely emphasis of anatomy: serving as a warden, John Parkinson was active in the Company of Surgeons, which was a traditional and, some thought, hidebound and somewhat stagnant organization. In September of 1769, at about the time James Parkinson would have been starting his apprenticeship, John Parkinson testified in a coroner's inquest in the Middlesex Sessions, about a post-mortem examination he had performed on a woman found in the road strangled. Such an examination would have involved an inspection of the body but probably not an autopsy; the examiner would surmise what had occurred inside the body from the signs on the outside of the body. According to the court's transcript:

“John Parkinson of Hoxton Surgeon Saith he hath this Day Examined the Deceased That there Appeared to have been Two Ligatures Tied round her Neck which Informant Supposes were the imediate Cause of her Death by Strangulation That there is the Mark of a Pin having been in her Throat But Informant is of the Opinion that such Pin could be [sic] no means have been Instrumental in her Death That he hath Examined her Privities and the is no Lasceration or other external appearance of any Injury there done to her That there does not Appear any Other Marks of Violence about her which could Occasion her Death That it is his Opinion that the above Ligatures could not have been fixed by the Deceased

²⁷ Crosse, for example, describes being scolded one morning “about my not getting up and dusting the bottles in the surgery.” Crosse, *A Surgeon*, p. 15. See also Joan Lane, *The Making of the English Patient: A Guide to Sources for the Social History of Medicine* (Phoenix Mill: Sutton Publishing Company, 2000), “Medical Apprenticeship and Training,” pp. 1-30: “[T]he few medical apprentices whose diaries have survived were mostly dissatisfied with their lives, either at the menial tasks they had to perform or their food and general living conditions,” p. 5

²⁸ See Loudon, *Medical Care*, p. 44.

herself so tight as they Appear to have been Tied And that they must have been Done by some Other Hands That they were both Tied so Tight that it Appears the Blood was entirely Prevented Circulation where each Ligature was Tied And those Ligatures Informant thinks were certainly the Cause of her Death. . .”²⁹

In this testimony, John Parkinson noted the relevant and obvious injuries that caused death but also indicated that he had investigated other parts the body, probing it for information. Specifically, he performed a genital examination, looking for evidence of additional trauma suggestive of rape, but did not find such evidence. His testimony describes not only what he did discover, but also what he expected but did not discover. It thus gives a hint about how he would have trained son to observe: not only to see what is before him but also to note what is absent.

Walking the Wards

Following his apprenticeship, in February 1776, Parkinson began a six-month stint at the London Hospital as a dressing pupil to the surgeon Richard Grindall.³⁰ Unlike ‘walking pupils,’ who simply observed, ‘dressing pupils’ assisted at operations, dressed wounds, let blood, pulled (or ‘drew’) teeth, and cared for seriously ill or injured patients. At the London, so-called ‘accidental’ and ‘extraordinary’ cases were admitted at all hours,

²⁹ Middlesex Sessions, Sessions Papers, Justices’ Working Documents, 1st September 1769, London Metropolitan Archives; located at www.LondonLives.org, LL ref: LMSMPS507030117, accessed October 8, 2012. The word “Prevented” is transcribed on the website as “Presented” but appears in the original handwritten document to be “Prevented,” which makes more sense in context. The word that appears in the original to be “Strangulation,” and is quoted that way above, is transcribed on the website as “Straugulation;” the words that appear in the original to be “was Tied” and are quoted that way above, are transcribed on the website as “Certainly.”

³⁰ A. E. Clark-Kennedy, *The London: A Study in the Voluntary Hospital System*, vol. 1, *The First Hundred Years, 1740-1840* (London: Pitman Medical Publishing Co. Ltd.), p. 32. Richard Grindall (1716-?1797) had been appointed Assistant Surgeon at the London in 1753 and Surgeon soon thereafter, on the death of the hospital’s founder and first surgeon, John Harrison.

and dressing pupils were often the first to see them at night.³¹ Where the walking pupils learned by observing, the dressing pupils like Parkinson learned by observing and by doing.

The London was a voluntary hospital; that is, it was a charity funded by subscription rather than by the Crown, established in 1740 to care for the poor in London's East End, specifically for poor manufacturers and merchant seamen and their families. It was also the nearest hospital to Parkinson's home in Hoxton. In 1776, the London had recently moved to its third location, a large building constructed for the purpose, and a new wing had been added in 1775; the hospital then housed about 200 patients.

As a dressing pupil at the London, Parkinson would have encountered the kinds of injuries and surgical problems described above, and also a large spectrum of medical illness. Fevers and dysentery were common on the wards, and medical treatments included bleeding, cupping, sweating, and the prescribing of mercury and quinine. The hospital's rules excluded certain categories of patients: children, except those with bladder stones or fractures, or needing amputation; epileptics, who were to be treated as outpatients, lest they frighten other patients; women about to give birth; patients with "Small Pox [who were to be treated at the Smallpox Hospital], itch, or any other infectious or venereal Distemper or judged to have a Consumptive condition;" "those disordered in their senses," who were to be sent to Bedlam Hospital; people in a "dieing

³¹ Clark-Kennedy, *The London*, p. 29. Clark-Kennedy's detailed account of the London's history is based on "the minutes of the hospital's board of governors, those of its house committee and the quarterly reports of the latter to the court. All of them have survived from their beginning." (p. v).

condition;” and chronic or ‘incurable’ patients, such as those with asthma or leg ulcers, who would be likely to fill beds for a long time.³²

The situation pertaining to venereal disease was a bit more complicated, governed by a web of rules that at different times allowed its admission, precluded its admission, or deemed it appropriate for outpatient treatment.³³ As a pupil, Parkinson certainly would have seen much venereal disease as well as the effects of its treatment with mercury.³⁴ Rules requiring the admission of “extraordinary” and “accidental” cases sometimes allowed venereal patients into the hospital, at least temporarily. Dressing pupils, staffing the hospital at night and when the surgeons were not present, would have encountered and examined them first. The venereal patients would have afforded Parkinson with ample opportunity to observe the particular effects of advanced syphilis on people’s ability to move, and to observe the tremors and mobility problems that followed

³² Clark-Kennedy, *The London*, pp. 60-61, quotes the hospital’s governing committee on this exclusion: “Ordered that no Patient deemed incurable by the Physicians or Surgeons or any in a consumptive or asthmatical Condition, being more capable of Relief as out-patients, or any Person having an ulcer of long standing, be admitted into the House.”

³³ About the treatment in hospitals and other institutional settings of people suffering from venereal disease at this time, and particularly about their acceptance into or exclusion from particular institutions, see two works by Kevin Siena: “Contagion, Exclusion, and the Unique Medical World of the Eighteenth-Century Workhouse: London Infirmaries in their Widest Relief,” in Jonathan Reinartz and Leonard Schwarz, eds. *Medicine and the Workhouse* (Woodbridge: Boydell & Brewer, 2013), pp. 19-39; and *Venereal Disease, Hospitals, and the Urban Poor: London’s “Foul” Wards, 1600-1800* (Rochester: University of Rochester Press, 2004). According to Siena, “The pox among the poor was one of London’s most pressing medical problems, and its hospitals had to respond. Perhaps because they could largely subsist on rents rather than by voluntary donations, the royal hospitals did not need to justify what they were doing, as did voluntary hospitals [like the London], which were forever fundraising and were highly sensitive about their public appearance.” *Venereal Disease*, p. 132.

³⁴ About a year after the hospital’s founding in 1740, the governors of the hospital resolved that ‘all such poor Persons whose Cases required a Salivation [mercury treatment] whether Venereal or otherwise, are proper Objects for this Charity’—that is, that they were not to be excluded from treatment, as they often were elsewhere, but they were to be excluded from the hospital itself. A separate house, subsequently known as the Lock, was established for those needing inpatient treatment; and surgeons were enjoined to treat others as outpatients. See Clark-Kennedy, *The London*, pp. 38-40. These patients, unlike other patients, were assessed a fee: “[P]atients suffering from [venereal disease] seem to have been treated rather differently to others. Out-patients were expected to deposit 10. 6d. as a security for their “good Behaviour,” to be repaid on Returning Thanks, and in-patients 10s. 6d. a week for their “Subsistence during their Cure.” So, although the very poor were always treated free, there were times when the Lock was no expense, and others when it may even have been a source of income to the charity.”

treatment with mercury. When mercury was used to treat patients suffering from syphilis affecting the nervous system, he would have seen the movement problems consequent to mercury superimposed on those consequent to the disease itself.

Richard Grindall had served as Master of the Surgeons' Company in 1775 and would do so again in 1782-3. He was about 60 years old and had been Surgeon at the London for over twenty years when Parkinson served as his dressing pupil. Parkinson would have worked with other surgeons as well; pupils at the London could work with any of the hospital's surgeons, as well as with its three physicians and apothecary.³⁵ It is likely that most of the operative surgery at the time was performed by the youngest of the hospital's three surgeons, Henry Thompson.³⁶

Grindall had a reputation for conscientiousness and deft surgery, and for checking on his sicker patients late at night, but the dearth of surviving documents other than institutional records about his appointment makes it difficult to picture his day-to-day practice or mode of teaching on the wards.³⁷ Something of his surgical skill is revealed in an early case he reported to the Royal Society, of a woman whose hands and toes, and

³⁵ See Susan Lawrence, *Charitable Knowledge*, p. 124 (quoting Clark-Kennedy, *The London*, p. 102: "In effect, by the 1760's, (and earlier in some hospitals), the surgeons' students could follow any surgeon on his rounds, whether they had signed up with him or not. At the London, at least, this development emerged explicitly because pupils thought "themselves subject only to the orders of the particular Surgeon with whom they are entered" and so were more difficult to discipline." The London had three staff surgeons in 1776; the other two were George Neale, who was also a senior surgeon, and the younger Henry Thompson, who did most of the operating at this time. The hospital's three physicians were Thomas Healde, James Maddocks, and Thomas Dickson. Like the other London hospitals, The London had a single apothecary at this time.

³⁶ Henry Thompson, who was a surgical innovator and an acquaintance of John Hunter, called Hunter in to the London following the death of one of his patients on February 18, 1775. Together, they performed post-mortem examination on the patient, a man in his thirties who had been bedridden for six years by a peculiar softening of the bones. Parkinson did not participate in this examination, as it occurred before he arrived at the London, but it gives a sense of the scope of the London's surgeons' activities. The process of performing an autopsy on the corpse of a patient dying at home is not treated as anything extraordinary here. See "A Remarkable Case of the Softness of the Bones," by Mr. Henry Thompson, Surgeon to the London Hospital, Communicated by Thomas Dickson M.D.F.R.S., *Medical Observations and Inquiries* 1776; vol. 5, p. 259. Clark-Kennedy describes Thompson as the first person in England to perform the risky procedure of amputating at the hip joint. Clark-Kennedy, *The London*, pp. 160-1.

³⁷ Clark-Kennedy, *The London*, p. 155.

parts of whose nose and wrists had to be amputated after blackening during a quotidian ague-- a consequence, Grindall believed, of a dose of a harmful medication, tincture of myrrh, that had been provided to her by a neighbor, “a barber and peruke-maker [wig-maker] at Bow.”³⁸

The case, published as “A Remarkable Case of the Efficacy of the Bark in a Mortification,” was seemingly intended to demonstrate the ‘violent and extraordinary effects’ and ‘great danger in interrupting nature in her operations’ and the benefits of [cinchona] bark, but it also served the rhetorical purpose of distancing surgeons like Grindall himself from the barbers from whom they had so recently separated. Grindall describes not only the subsequent salutary effects of bark on the sick woman and her survival after several simultaneous amputations, but also the appropriate treatment, before her arrival at the London, by her apothecary, in contrast to that of the barber and “peruke-maker.”³⁹

Most of what the surgeons did at the London, according to the London’s historian, A. E. Clark-Kennedy, was to treat people who had sustained trauma, setting simple fractures, amputating for compound fractures, and trephining the skull for depressed fractures. Lenses were extracted (or “couched”) for cataracts, and couching and

³⁸ See Richard Grindall, “A Remarkable Case of the Efficacy of the Bark in a Mortification.” By Mr. Richard Grindall, Surgeon to the London Hospital, *The Medical Museum: or, A Repository of Cases, Experiments, Researches, and Discoveries, Collected at Home and Abroad . . . By gentlemen of the faculty*, 1763; 2: 171-4, p. 174. This case was also read to the Royal Society on December 8, 1757 and published in the *Transactions of the Royal Society*, 1757; 50(1): 379-83.

³⁹ This case, the only published report by Grindall that I have found, not only serves to highlight surgical expertise (it does seem remarkable that this woman survived) but also implicitly represents the side of the apprenticeship-trained apothecaries in their struggle with druggists and other “irregulars” over prescribing and selling medicines. Surgeons had professionally separated themselves from barbers in 1745, only 12 years before this case was published, when the Company of Barber-Surgeons divided to form the Company of Surgeons and the Worshipful Company of Barbers. Grindall’s rhetorical purpose here may have included differentiating between surgeons and barbers, and aligning barbers with wig-makers. For more on these struggles for position among different types of medical practitioners, see Loudon, *Medical Care*, p. 42 and passim.

trepanning instruments were provided for each member of the staff.⁴⁰ Most wounds suppurated, requiring frequent changes of dressings, but even clean wounds were dressed daily or twice a day.⁴¹ This was intense, and sometimes gory, hands-on work. The training Parkinson received at the London would have provided much more immediate contact with patients' bodies, including the interiors of their bodies, than he would have received had he trained as a physician.

The sensory immediacy of this training could be intense enough to unnerve new pupils. Hampton Weekes, an apothecary pupil at St. Thomas's in 1801-1802 whose remarkable letters to his family survive, described his reaction to an operation early in his pupilship: "We had an operation to day just above the Knee for a very bad fractur'd Leg. I felt a great tenderness for him, it was before dinner too, it was a shoking sight."⁴² His queasiness at surgery passed within a month or so, it appears, but he notes that it was common among new pupils: "As to fainting I have entirely done that away, I take no brandy nor any thing else now but at ye. 4 or 5 last operations there has been 2,3,4, &

⁴⁰ Clark-Kennedy, *The London*, pp. 66 and 148. The surgical conditions, and the surgical procedures undertaken to treat them that are described in the letters of Hampton Weekes (see below), though describing surgical hospital practice a quarter-century later, are probably not very different from those that would have been seen at the London in the 1770s. They include, aside from the very common ones listed above, repair of a popliteal aneurysm, a crural aneurysm, and a hydrocele; drainage of a psoas abscess; operations for breast cancer, strangulated hernia, cleft lip, skin tumors; and puncture of the tympanic membrane to treat deafness. Non-operative surgical treatments included use of pulleys for treating a dislocated humerus and the treatment of leg ulcers. See Ford, *A Medical Student*, pp. 28-9.

⁴¹ For a textured description of the process of dressing wounds, see Mary Fissell's account of the process, based on the apprentice surgeon Alexander Morgan's 1720 notebook, in *Patients, Power, and The Poor in Eighteenth-Century Bristol* (Cambridge: Cambridge University Press, 1991), pp. 53-5.

⁴² Hampton Weekes, letter of September (?)19, 1801, in Ford, *A Medical Student*, p. 39. Hampton was asked in a return letter from his father, a surgeon-apothecary, to clarify his use of the word "tenderness" for his brother Dick: "Dick desires an explanation of the word tenderness in your Letter, he has a strong inclination to think it is only another name for Sickness, fainting, &c &c Dick . . . hopes you was not carried out for a dead man, wishes you to take a bumper of brandy next time & buy you a small bottle of Volatile Salts or a little snuff in a box, the better to take your Eye off at times," Letter of September 21, 1801, p. 42. The Weekes letters, though intended to convey news about the noteworthy, omitting, as their editor John Ford says, "routine work, such as dressing and the small change of general practice" (pp. 9-10), nonetheless provide an extraordinarily vivid look at the day-to-day life, practical concerns, and thoughts of a hospital pupil.

more young fellows who are uncommonly sick obliged to leave the Theater.”⁴³ Even given the high level of illness and the endless struggle to keep the building, bedding, and patients clean, and in spite of the frequent diarrheal illness and suppurating wounds, the mortality rate for inpatients at the London remained fairly consistent, and perhaps surprisingly low, over the hospital’s first hundred years, at roughly ten per cent.⁴⁴

Although the governors’ minutes mostly avoid focusing on the fact, some of the patients who died at the hospital were dissected as part of a post-mortem investigation; this was allowable so long as it was directed by the physicians and permitted by the family. The London had a special room designated for dissecting, one distinct from the dead house or mortuary where bodies awaited removal for burial.⁴⁵ Some bodies were surreptitiously transported out of the hospital to be dissected elsewhere, however, perhaps in private classes of practical anatomy. The London’s hospital minutes in fact implicate Richard Grindall in facilitating the transportation of such bodies to a fellow surgeon in London:

“[The hospital committee once questioned] John Cushee and John Smith, the Two Beadles. They acknowledged that on Friday night the 8th instant, they did carry out the body of a Woman in a Hamper by order of Mr. Grindall, and by him desired to leave it at the House of Dr. Douglas, a Surgeon in Cannon Street . . . They confessed that they had carried or sent out to the Surgeons within Nine Months past Four Bodys.”⁴⁶

⁴³ By the 10th of October, Hampton Weekes was finding surgery easier to witness. Ford, *A Medical Student*, p. 51.

⁴⁴ Not long after Parkinson was a pupil there, between 4 December, 1780 and 6 December, 1781, for example, the London admitted 1781 inpatients and cared for 6830 outpatients, for a total of 8611 patients. Of the 1781 inpatients, 181 died, 24 were discharged for “misbehaviour,” 340 were discharged “relieved,” and 1054 were discharged “cured.” Another 182 remained hospitalized at year’s end. See *The London Hospital, An Account of the Rise, Progress, and State of the London Hospital, From its First Institution on the 3d of November 1740, to the First of January 1782, for the Relief of All Sick and Diseased Persons; and in Particular Manufacturers, Seamen in Merchants Service, and their Wives and Children. Supported by Charitable and Voluntary Contributions* (London: The London Hospital 1782), p. 12.

⁴⁵ Clark-Kennedy notes that as early as 1746, the hospital’s house committee had resolved that “a Room be built in order to open such extraordinary Bodies as are directed by the Physicians.” *The London*, pp. 106-7.

⁴⁶ Clark-Kennedy, *The London*, pp. 106-7, quoting the hospital’s minutes. Sometimes bodies were also “smuggled out of the hospital to be sold for dissection to one of the private schools of anatomy.”

The degree to which dissections were performed on the premises of the London for purely educational purposes in the 1770s, when Parkinson was a dressing pupil, remains more obscure, though they almost certainly occurred.⁴⁷ Recent work by multi-disciplinary groups of historians, biological anthropologists, and archaeologists excavating the graveyards abutting hospitals in Great Britain, including The London, and examining the human remains buried there, has revealed the extent to which bodies had undergone dissection before burial. Combined with documentary evidence from the hospitals' archives, the scholarship supports a picture of much more extensive dissection in the hospitals (and workhouses) in the late eighteenth and early nineteenth centuries than was previously known.⁴⁸ It suggests that surgeons and surgical pupils did a good deal more probing of bodies' interiors than has been recognized before.

During the eighteenth century, and especially after 1750, it also became increasingly common for hospital pupils to supplement their hospital experience by

⁴⁷ See Lawrence, *Charitable Knowledge*, p 194-5: "Hospital lecturers and pupils certainly dissected hospital corpses; hospital governors definitely passed rules about access to dead bodies. Yet how much the governors actually knew or cared about what the students did, much less how much attention the staff and students routinely paid to the regulations, remains obscure. Many possible motives and conditions led governors to make rules but not necessarily to enforce them." Certainly by the time that Hampton Weekes was a pupil at St. Thomas's in 1801, there was abundant dissection on the hospital premises of bodies and body parts. He even sent some anatomical preparations home at the request of his father, the surgeon-apothecary Richard Weekes. See Ford, *A Medical Student*. Reinforcing the ordinariness of the process, Hampton Weekes blithely describes the procuring of specimens: "Attree [another pupil] has just bought a Head and we are going to attack it tomorrow" (p. 57), and how sickening, especially to a neophyte, the sights and smells of the hospital's dissecting room were, with more than one body awaiting dissection: "[B]ut before we left the Hospital, I says to [Dominick Whiteman, a visitor], what will you go up into the dissecting Room, ah he sayd, he did not care, but seemed not much to like the idea, so away we trudged, and got opposite to it & saw a light, dam it says he have you got any snuff, no I says come along, so as we ascended the stairs, says he I never smell't such a stinck in all my life, began to spit about & hung back I could not help laughing, however I got him as far as the door just peep'd in & saw 3 or 4 subjects, there was only one young man there who was wishing to finish a subject, for blood vessels" (p. 51).

⁴⁸ See Louise Fowler and Natasha Powers, "Patients, Anatomists and Resurrection Men: Archaeological Evidence for Anatomy Teaching at the London Hospital in the Early Nineteenth Century," in Piers Mitchell, ed., *Anatomical Dissection in Enlightenment Britain and Beyond: Autopsy, Pathology and Display* (Farnham, Surrey: Ashgate, 2012), pp. 77-94, especially pp. 87-8; and Jonathan Evans, "Barts and the London's Medical Museum Collections," pp. 115-32.

attending private lectures in anatomy (including practical anatomical dissection), surgery, chemistry, midwifery, and medicine that were offered, for fees, outside the hospital, sometimes by members of the hospital staff.⁴⁹ While there is no record of Parkinson attending such lectures when he was at the London, he almost certainly did.⁵⁰ Supplementing their more structured training with the outside lectures they chose to attend allowed students in a sense to design their own curricula, based on what they believed they needed to prepare for their particular chosen practice.⁵¹ Students were free to attend courses in other disciplines; apothecaries were serving as hospital pupils; surgeons were going on to obtain medical degrees; and physicians were enrolling for courses on anatomy.⁵² Students also enrolled in courses that would have no direct utility practice. Some, on topics like the non-medical aspects of chemistry or the ‘Animal Oeconomy,’ were consistent with a more gentlemanly, and less occupationally practical, pursuit of knowledge.⁵³

After completing his six months as a dressing pupil at the London, Parkinson rejoined his father’s practice. Evidence points to its being a busy practice with its practitioners deeply embedded in the local community. Surgeon-apothecaries like the Parkinsons kept a shop, often one that functioned as a kind of office for seeing and diagnosing patients, but they also spent a good deal of time visiting patients in their homes. A remarkably vivid picture of a day in the life of a busy surgeon-apothecary

⁴⁹ Susan Lawrence, “Entrepreneurs and Private Enterprise: The Development of Medical Lecturing in London, 1775-1820,” *Bulletin of the History of Medicine* 1988; 62(2): 171-192, p. 172.

⁵⁰ See Susan Lawrence, “Entrepreneurs,” p. 176: “While it cannot be assumed that all the hospital pupils added one or more courses to their London education, all those whose accounts have survived mention going to lectures as well as walking the wards.” Parkinson later alluded to the importance of such lectures.

⁵¹ See Bonner, *Becoming a Doctor*, and Loudon, *Medical Care*, p. 14.

⁵² See Lawrence, *Charitable Knowledge*, for a discussion of the relationships and tensions among apothecaries, surgeons, and physicians in the London hospitals during the eighteenth and early nineteenth centuries, and Clark-Kennedy, *The London*, concerning the London in particular.

⁵³ Susan Lawrence, *Charitable Knowledge*, p. 177.

survives in a letter from the surgeon-apothecary Richard Weekes (1751-1823) to his son, the letter-writer Hampton Weekes. Weekes, Sr., an almost exact contemporary of James Parkinson, practiced in Sussex; his son, Dick, assisted in the practice while Hampton studied in London. The letter does not purport to recount a particularly unusual day; it simply describes what has been happening lately at home:

“We have been very much at leisure for several days past until Sunday last, in the 1st of the mornng. I was sent for to Pollards wife at Poynings who had an Infln [inflammation] of the Plura [pleura] while I was bleeding her Godly’s wife at Ditchg. sent out the man came to Poynings after me when I got to Grainnes’s Gate met Mrs. Bridgers Man with his horse sweating profusely said Mrs. lay dead & had been near an hour as he had been to my home when I got there she was recovered from a strong Convulsion fit has had two before I think them of serious consequence rode home very fast, there was Godley teasing me when I got into the Shop there was Dr. Dick [the younger Richard Weekes, Hampton’s brother] with Woolven’s son a lad abt. [about] 15 or 16 years of age with his hand shattered all to pieces by the Bursting of a Gun, he had put a Tourniquet on his Arm and lay him flat on his back, just at this instant, one of Chandler’s Girls set her clothes on fire & is most terribly burnt while the man & his wife were at Church. I sent Woolven home & Dick whent to Lindfield after Burtenshaw & Ward [surgeon-apothecaries in Lindfield], I went to Ditchley and finding Mrs. Godly not likely to be deliverd in the course of the Afternoon rode across to Franklands when I got to broadstreet met Will; coming after me to go again to Mrs. Bridgers as she was worse got to Franslands Burtenshaw not come had not been there more than a quarter of an hour before Godley came again say’d I must come immediately however I stopt & Amputated the hand [Woolven’s] just above the Wrist the Dr. [Dick] behaved like a Lion then sent him back to Mrs. B. & I to Ditchling & deliverd Mrs. G. with the Forceps at 3 next Morning. The lad [Woolven] is going on very well. Chandlers Daughter in a fair way, was sent for to Bolney also same day to Sander’s Wife she is dead since. Dick brought the hand home & dissected it, & we mean to put the bones together . . .”⁵⁴

Weekes’s account suggests how busy and varied a general practice could be and how dangerously ill its patients sometimes were. It also demonstrates the practitioners’ continuing efforts to learn more about medicine and surgery and to keep abreast of new

⁵⁴ Ford, *A Medical Student*, letter of October 288, 1801, p. 57. This passage (with spelling and punctuation unchanged and bracketed information supplied by me) is quoted in full because its essence and the pace it illustrates emerge only from the whole. Ford, familiar with the terrain covered in the Weekeses’ practice, estimates that Richard Weekes traveled at least 25 miles on these rounds.

discoveries and techniques. Both the practice of dissecting any available specimens and the practitioners' easy access to such specimens are a bit surprising; such dissection, this account makes clear, was not merely part of training but a variety of continuing education.

Within a few years of joining his father, Parkinson was probably bearing most of the burdens of the practice. His father, who had been healthy until his forties, was intermittently ill enough to be prevented from working, suffering initially from severe, prolonged and frequent attacks of gout, each of which might confine him for a month or six weeks, and later from what Parkinson suspects was a "schirrous contracted rectum" [likely a rectal cancer], though he says this was never clarified. This latter, which was attended with daily excruciating pain, lasted two years and ended with John Parkinson's death in January, 1784. Parkinson, who developed gout himself at age 38, described his father's and his own cases of gout in a tract he published about the disease in 1805.⁵⁵

Irvine Loudon has described the educational path of a 'typical' surgeon-apothecary of the second half of the eighteenth century: a 'grammar school boy' with 'at least some knowledge of Latin and often a smattering of Greek,' who, after leaving school between age 12 and age 15, becomes an apprentice, a process that would have completed his education before midcentury but that, after mid-century, was usually followed by a "further period of medical instruction which could, for example, include a year or more at a provincial hospital as a pupil of one of the surgeons, followed by a further year in London attending lectures and 'walking the wards' of the hospitals, as

⁵⁵ James Parkinson, *Observations on the Nature and Cure of Gout; On Nodes of the Joints and On the Influence of Certain Articles of Diet in Gout, Rheumatism, and Gravel* (London: H. D. Symonds, Paternoster Row, 1805). Parkinson describes his father's case on pp. 101-3 and his own, in great detail, on pp. 159-72.

well as attending private courses in various medical subjects.”⁵⁶ Parkinson’s training, with its seven-year apprenticeship followed by six months as a dressing pupil, hews close to the typical here.

Parkinson ultimately did not, it turns out, think much of this arrangement. In 1800, after decades of practice, and a short time before his own son’s apprenticeship, he published a stern critique of this sequence in *The Hospital Pupil*, a prescriptive tract written as four letters addressing the best ways to prepare for and undertake medical training.⁵⁷ At first glance, *The Hospital Pupil* seems a conventional kind of manual, similar in form and content to those by James Lucas and James Makittrick, and intending to provide advice, based on long personal experience, to students aiming for medical practice. Like other manuals, it focuses early on the qualities of character requisite for a future practitioner, and on the need for familiarity with Latin and natural philosophy. Perhaps for this reason, Parkinson’s biographers, beginning with Leonard Rowntree, have tended to read the initial sections of *The Hospital Pupil* as a straightforward description of Parkinson’s of own training. But its relationship to his own past experience is likely more complicated than that.

The first letter, addressed to the father of a potential medical person, has an avuncular and self-effacing tone; it gently urges the parent to ensure that the potential student’s character is appropriate, and his abilities adequate, for the practice of medicine, and, less conventionally, that medicine, a demanding profession, is suited for the potential student’s character as well. This is all within the bounds of conventional advice. But *The Hospital Pupil* soon deviates from the more formulaic guides, proceeding from

⁵⁶ Loudon, *Medical Care*, p. 35.

⁵⁷ James Parkinson, *The Hospital Pupil; Or An Essay Intended to Facilitate the Study of Medicine and Surgery* (London: H. D. Symonds, 1800).

individual advice to criticizing conventional training modes and sequences of instruction altogether, and thence to recommending specific and substantial changes, particularly in the order in which the components of a medical education should be undertaken.

The Hospital Pupil is blistering in places, especially about the years surgeon-apothecaries' apprentices needlessly waste in the tedious compounding of remedies.⁵⁸

Parkinson believes that this endless compounding shortchanges them when they could be putting the time to better use, and that it ill-prepares them for what he sees as the most valuable part of training, something that is not part of the traditional apprenticeship training of a surgeon-apothecary at all, the months spent as a hospital pupil:

“According to the present system, the first care of a parent, who has a son whom he intends shall be educated in both branches of the healing art, is to find out some gentleman of respectability who is properly established as a surgeon and apothecary. With him, paying a proper premium, he fixes his son, who has received a common school education, as an apprentice for seven years. At the end of this period he is, in general, sent to one of the hospitals in the metropolis, where he attends the lectures, and witnesses the practiced of the hospital for a twelvemonth, or even less time: and, then, if a favourable opportunity offers, takes charge of the health of some populous neighborhood.

Now, on full conviction, I assert, that of all the modes which would be devised for a medical and chirurgical education, this is the most absurd: and is the one which would most certainly exclude a young man from the chance of acquiring that knowledge, which the important situation he is about to fill, so imperiously demands.”⁵⁹

The problem, Parkinson argues, is the order in which the components of training are undertaken: this order virtually ensures that the hospital pupil will not have enough knowledge to profit from what the hospital experience offers once he finally arrives there. The problem is the nature of apprenticeship itself:

“The first four or five years are almost entirely appropriated to the compounding of medicines; the art of which, with every habit of necessary exactness, might be

⁵⁸ Parkinson chooses not to address here the financial exigencies of an apothecary's practice, or the fact that the apothecary, while attending to patients, might need assistance with the preparation of remedies to keep a practice running.

⁵⁹ Parkinson, *Hospital Pupil*, pp. 28-9.

just as well obtained in as many months. The remaining years of his apprenticeship bring with them the acquisition of the art of bleeding, of dressing a blister, and, for the completion of the climax—of exhibiting an enema. If he be blest with a mind so alert, that even this situation, so ill calculated to call it into action, cannot render it torpid, he seizes every opportunity of gaining information, he peruses and reperuses the dispensatory, studies some obsolete practice of medicine, and doses over some treatise in physiology.”⁶⁰

Walking the wards of a hospital as a dresser, a student can act as an assistant to the surgeons of the hospital, “dressing wounds, reducing fractures, and performing several of the lesser operations of surgery.” Hospital students have, at the same time,

“the opportunity of attending the several lectures on anatomy, physiology, medicine, surgery, chemistry, &c. Indeed the opportunities of information are here so great as to authorize me to describe them, as constituting the first schools of practical medicine in the world; and such as would, undoubtedly, secure the providing of intelligent and able practitioners for the several parts of the country, were but a due regard paid to their being employed in the most advantageous order and mode.”⁶¹

Significantly, these observations come from a man who spent roughly fourteen times longer as an apprentice than as a hospital pupil, and who was apprenticed to his own father.

The suggestions Parkinson makes for altering the content and order of medical training are complex, involving altering both the sequence of training and the proportions of training time devoted to each of its components (with more emphasis on hospital training), as well as suggestions about a rigorous sequence of lectures and reading. He recommends that students spend at least a year as dressing pupils, and that they make sure to perform, rather than simply to observe, dissections, spending “a very considerable proportion” of their time in the dissecting rooms. Observing already-prepared anatomical specimens is not sufficient:

⁶⁰ Parkinson, *Hospital Pupil*, p. 32.

⁶¹ Parkinson, *Hospital Pupil*, pp. 34-5.

“The removal of parts, necessary to be made, previous to a dissection, is generally such as to effect a total change of appearance, in the part exhibited; in consequence they are shown to the spectators in an unnatural state, in which, any idea of their relative connections, cannot, but very imperfectly, be communicated. Hence, although the pupil may, by such lectures and demonstrations, gain a very exact idea of form and structure . . . he must obtain a very imperfect idea of their appearance *in situ*, surrounded by parts, in connection with which they must always be considered.”⁶²

Demonstrating prepared anatomical specimens was, of course, exactly what Parkinson’s father did as Warden at the Company of Surgeons.

When *The Hospital Pupil* appeared, its suggestions were radical. Though it is filled with practical recommendations, it might in some ways be better read as a reformist tract than as a simple guidebook.⁶³ In this, it would be consistent with another important aspect of Parkinson’s life, one that surfaced after he had entered practice: his role as a political radical, pamphleteer, and reformer. Parkinson’s political involvement, almost all of which occurred between 1790 and 1795, has been described in detail by his biographers, though it has not been discussed in connection with, or as informing, his medical work.⁶⁴ This is not the place to examine his radicalism in detail, but the fact and

⁶² Parkinson, *Hospital Pupil*, p. 77.

⁶³ In a biographical sketch about Parkinson, among sketches of other general practitioners, Irvine Loudon says of Parkinson, “Although he was a reformer, publishing a pamphlet in 1794 entitled, ‘Revolutions without Bloodshed . . .’ and was closely involved in the Association of Apothecaries, he appears to have written nothing on medical reform.” *Medical Care*, p. 317. It is certainly arguable that, in the scope and magnitude of its suggestions for reorganization of medical training, *The Hospital Pupil* constitutes a plea for medical reform. Susan Lawrence notes that even though the utility of apprenticeship was being debated at the time in various discussions about how to reform medicine and medical training, “only a very few would even think of denouncing it totally. It took a radical physician, Dr. Thomas Beddoes, to sneer, ‘I allow little or nothing for apprenticeship; during which the mind is too apt to be choked up with moral and medical rubbish.’” *Charitable Knowledge*, p. 96. In *The Hospital Pupil*, Parkinson was unambiguously openly denouncing apprenticeship as it was then organized.

⁶⁴ See Morris, *James Parkinson*, Chapters 3, “The Political Radical,” and 4, “The Pop-Gun Plot;” Roberts, *James Parkinson*, Chapters 3, “The Political Reformer,” and 4, “Disillusionment;” and Gardner-Thorpe, *James Parkinson*, “James the Politician,” pp. 22-5. The most detailed and best contextualized account is found in McMenemey, “James Parkinson,” pp. 17-73. An early member of the Society for Constitutional Information (founded in 1780) and later of the London Corresponding Society (founded in 1792), Parkinson was active in efforts to call attention to the plight of the poor and to encourage parliamentary reform; he was a prolific pamphleteer. In connection with a conspiracy to kill King George III, the so-called “Pop-Gun Plot,” narrowly avoiding an accusation of treason, he was called to give evidence before

extent of it are relevant, both for demonstrating his habit of questioning the *status quo* and for highlighting his tendency to approach problems by writing about them. If nothing else, his learning to craft logical and persuasive political arguments may have helped him to build coherent and persuasive medical arguments.

Parkinson's practice must have been very busy; he later noted that he didn't have leisure to be confined by attacks of gout because he was engaged in "the most labourious part of a harassing profession."⁶⁵ Nonetheless, he decided in 1785, a year after his father's death, to attend a course of lectures on surgery given privately by the surgeon and comparative anatomist John Hunter (1728-1793). Parkinson knew several people who had worked with Hunter at various times, and he may already have known Hunter personally. His decision to attend lectures after ten years of practice, and at a time following his father's death when his work must have been particularly busy, suggests that he felt something was missing from his understanding of surgery that Hunter's insights could provide.

Hunter gave a series of lectures on the principles of surgery every year; he was unusual in revising his lectures instead of working from the same notes year after year. His lectures were densely theoretical and included lengthy discussions about the nature of the 'animal oeconomy,' the relationship of organic anatomical structure to function, and about what constituted disease and how diseases should be classified. He specified early

the Privy Council in 1794 and questioned by William Pitt the Younger. As the transcripts of the inquiry, quoted in his biographies, show, Parkinson politely but firmly stood up to Pitt and declined to answer questions that he thought might incriminate him or his friends. See Appendix I, below, which lists Parkinson's known political tracts, including those written under the pseudonym "Old Hubert." McMenemey's account of Parkinson is unfortunately colored throughout by his use of peculiarly condescending language, especially that alluding to Parkinson's height and his status as a surgeon-apothecary rather than a physician. Here he describes Parkinson as "the indefatigable little pen-warrior of Hoxton Square," p. 25.

⁶⁵ Parkinson, *Gout*, pp. iii-iv.

in his lectures that he was going to address things that no one else talked about and that he was going to speak theoretically before discussing specific diseases and conditions.⁶⁶

Hunter had a reputation as a somewhat awkward speaker; he mumbled and frequently referred to his notes, and he was conceptually obscure and difficult to understand. But it is also the case, as he made clear in the lectures, that some of his obscurity had to do with the novelty of what he was choosing to discuss. In some cases, the ideas were new enough that he had to develop new language for his concepts, because previous terminology did not suffice. Hunter famously collected all kinds of animals, alive and dead, ultimately becoming “a nag to the nobility, demanding cadavers from their menageries.”⁶⁷ The property he moved to in Leicester Square in 1783 became a kind of laboratory or institute for the study of comparative anatomy, complete with dissection rooms, a lecture theater, a printing press, a hall for exhibiting dry and wet anatomical specimens, and housing for assistants and students.

Parkinson attended Hunter’s course in Leicester Square in the winter of 1785-6, taking detailed notes in shorthand; these notes are preserved in the collection of the Royal College of Surgeons. Parkinson’s are among several sets of notes that remain from Hunter’s lectures. The notes included as *Lectures on the Principles of Surgery* in the first volume of Hunter’s collected works, edited by James Palmer, are not Parkinson’s but those of Nathaniel Rumsey, taken the winter first of 1786-7, which are considered to be more complete.⁶⁸ Parkinson’s own notes were later published in 1833 by his son John W.

⁶⁶ The content of Hunter’s lectures will be discussed in more depth in Chapter 4.

⁶⁷ Steven Cross, “John Hunter, the Animal Economy, and Late Eighteenth-Century Physiological Discourse,” *Studies in the History of Biology* 1981; 1-110, p. 11.

⁶⁸ See James F. Palmer, ed., *Works of John Hunter, F.R.S.*, in 4 vol. (London: Longman, Rees, Orme, Brown, Green, and Longman, 1835). Palmer was aware of several sets of notes on these lectures to choose from, including Parkinson’s, but he opted to print those of Nathaniel Rumsey, from the winter of 1786-7. It is likely that these two lecture series did not differ materially, although Hunter was always amending his

K. Parkinson, as *Hunterian Reminiscences*, complete with the ideas that J.W.K.

Parkinson considered erroneous, and with what J.W.K Parkinson saw as Hunter's obscurity left intact.⁶⁹

Parkinson's notes are important not because they are the most accurate—in the sense of capturing all of Hunter's words, which they may not do—but because they illuminate Parkinson's own thinking and learning. About the different versions of notes that a lecture can generate in different hearers, Parkinson observed in *The Hospital Pupil*:

“... I must give a word or two on a practice, to which I have already hinted—employing the notes taken by others. This, I have reason to suspect, is too frequently adopted . . . [C]onsider, that notes are seldom taken so fully, as to carry on the subject connectedly, or as to comprise nearly the whole that has been delivered; but are, in general, taken only with sufficient celerity, to allow of taking down such observations, as appear to the writer to be of importance, from their not having occurred to him before in the same point of view.”⁷⁰

Parkinson's own transcribed notes tell us what he thought he still needed to learn. In a sense, the transcribed text sheds light on how Hunter taught him to think, as much as on

ideas. According to Steven Cross, Rumsey's text “is so characteristically Hunterian in style, and full of examples to illustrate points, that Palmer conjectures that the student had access to the Hunterian manuscript (Hunter always read his lectures). Palmer was able to compare these notes with several other sets at the Royal College of Surgeons, all less complete. The next most full set, taken in shorthand by James Parkinson in 1785, has also been published[.]” Cross, “John Hunter,” p. 81, footnote 22.

⁶⁹ James Parkinson, *Hunterian Reminiscences; Being the Substance of a Course of Lectures on the Principles and Practice of Surgery Delivered by the Late Mr. John Hunter, In the Year 1785; Taken in Short-Hand and Afterwards Fairly Transcribed by the Late Mr. James Parkinson, Author of “Organic Remains of a Former World,” &c., Edited by his Son, J.W.K. Parkinson, Fellow of the Royal College of Surgeons, in London; by Whom Are Appended Illustrative Notes* (London: Sherwood, Gilbert, and Piper, Paternoster Row, 1833). John W. K. Parkinson noted that because his father had transcribed the notes “with the view of selecting those pathological doctrines which were exclusively Mr. Hunter's, and of conveying them as precisely as possible in his own words, he [the editor] felt that to make any material alteration in the genuine expression of these notes, and so to affect their sense, would be a violation both of the sacred memory of that great man, and of his much-lamented amiable Father, to which he could neither bring his hear to consent, nor his hand to perpetrate.” *Hunterian Reminiscences*, pp. xi-xii. About Hunter's obscurity, J. W. K. Parkinson noted, “[H]e [the editor] is also ready to allow, that there exist in it many obscure passages, the necessary consequence of the acknowledged difficulty that Mr. Hunter had in always making himself understood by his auditors, his powers of language being often too inadequate to embody the magnitude of his conceptions.” *Hunterian Reminiscences*, p. xi. Cross also notes Hunter's occasional opacity: “Hunter's texts are notorious for their awkward and obscure prose, but the *Lectures on the Principles of Surgery* are the least obscure of his works,” Cross, p. 79.

⁷⁰ Parkinson, *The Hospital Pupil*, p. 74.

any particular facts; it is Hunter's method of theorizing that comes through the notes.

These notes show Hunter tangling intellectually with the question of what constitutes a disease and what constitutes a symptom. He did not limit his thinking here to apparently local conditions, or to conditions that had traditionally been the purview of the surgeon, nor did he simply paraphrase the kind of nosological categorizing that he would have been found in contemporary texts. He incorporated into his nosologic thinking a dynamic and physiological (physiological in the sense of functional rather than in the sense of individual) view, one drawn from the work on comparative anatomy and animal physiology that he called the 'animal oeconomy.' His lectures were supplemented by demonstrations of all kinds. There was a dynamic quality to the kind of observation he was modeling that differed from what a student could glean from simply viewing more static anatomical preparations. Inherent in what Hunter was teaching and demonstrating with his work in comparative anatomy was a kind of fluidity. There was a sense of a continuum, and almost of movement, in the graduated analogous comparative anatomic structures he demonstrated.

Hunter had the reputation of being intellectually unconstrained by the boundaries of accepted medical theory; his tendency to investigate questions on his own and to accept only what he had observed for himself was legendary. Implicit, and even explicit, in what he taught were instructions about how to do this investigating.⁷¹ His lectures,

⁷¹ See, for example, Susan Lawrence, "Educating the Senses: Students, Teachers and Medical Rhetoric in Eighteenth-Century London," in William F. Bynum and Roy Porter, eds., *Medicine and the Five Senses* (Cambridge: Cambridge University Press, 1993), pp. 154-178, p. 171, which describes Hunter as "bombard[ing] audiences [of students] with the image of a practitioner who would hardly accept what anyone else had observed without repeating the experiment for himself. Reported accounts and 'speculation' were thus officially undermined in favour of direct personal observations, ironically distant from the pupils, who had no chance to sharpen their own perceptions or to form their own judgements." See, also, "The Electric Eel's Peculiar Organs," in Wendy Moore's biographical study of John Hunter, *Knife Man: Blood, Body-Snatching, and the Birth of Modern Surgery* (New York: Broadway Books, 2005),

combined with the active dissection, preparation, and viewing of anatomical specimens, of both animals and people, that were occurring at Leicester Square provided an ideal laboratory for training such observation.

Parkinson's biographers mention that he attended a course of Hunter's lectures, but they do not lay emphasis on it. But it is likely that these lectures were pivotal to certain parts of his thinking. During his later years in practice, Parkinson seemed to divide his intellectual work and his considerable writing into two types of activities. The first was compiling enormous amounts of information and explicating it in formats and language accessible to laymen. This kind of work, found not only in his medical writings, but also in his writings about chemistry and natural history, was essentially that of a popularizer, though the popularizing occurred at a fairly sophisticated level. This work required organizing information gathered elsewhere, a perhaps underrated skill. But it did not involve postulating new theories about that material, except insofar as choices of how to organize the data represented conceptual constructs in themselves.

The second type of intellectual activity was more creative and involved observing and reporting on new phenomena. Parkinson alternated these activities, and it is likely that the intellectual tendencies they represent both informed each other and were in a kind of mutual tension, the desire to see new things, or things anew, and of recognizing the previously unknown combining with the desire to put the known world in order.

In some ways, these two facets of Parkinson's thought and work can be seen in the two main streams of his education: the somewhat conventional training he received from apprenticeship and practice with his father, and the less conventional training he

pp. 167-98, where Moore quotes several of Hunter's students on the subject of Hunter's unusual teaching and emphasis on students' discovering things for themselves.

sought and received from John Hunter. As he learned the methods for meticulous observation, he probably gleaned different things from each. John Parkinson demonstrated his own careful observation in his testimony in the Middlesex Sessions case describing his post-mortem examination of the strangled woman. It is clear here how Parkinson might have learned from his father the way to investigate a body, following the physical traces, and attempting to read them as a way of understanding what had occurred in the body's interior, and over a period of time.

In his later writings about, and allusions to, Hunter, Parkinson is nothing but admiring, and even effusive. About John Parkinson, however, he is occasionally more reserved. Though he describes him in one place as a “respected relative,” a suggestion of unease emerges in the way Parkinson discusses his father—and if not his father altogether, at least his father's approach—in several writings. The comparison between the static prosecutions of the Company of Surgeons and the dynamic physiology and comparative anatomy at Leicester Square would have been striking.⁷²

Parkinson's education was broad, and it was not limited to his formal training in medicine and surgery. The place he grew up in provided him a different kind of education. If John Parkinson and John Hunter provided him with the tools for observing, his neighborhood provided him the people to observe.

⁷² See Susan Lawrence, *Charitable Knowledge*, pp. 86-91, for a discussion of the conservatism and perfunctory approach to teaching that characterized the Company of Surgeons during the 1770s and 1780s, when John Parkinson served as Warden. See Wall, *The History of the Surgeons' Company*, p. 101: “The offices of Warden and Steward of Anatomy were never popular, and when the fine for refusing to serve anatomical office was reduced from £21 to 5 guineas in 1766, few seemed willing to serve. John Hunter in 1776 preferred payment to service.” Hunter refused to serve as Warden, but at the same time he was offering private courses and serving as Surgeon to St. George's Hospital. Lawrence, *Charitable Knowledge*, p. 88. Wall (Appendix IV, p. 231) lists John Parkinson as one of the Company's five Anatomical officers in 1775-6 and John Hunter, also in 1776, as one of the fined. William Blizard, another of Parkinson's mentors and one of the founders of the medical school at the London Hospital, was fined for the same refusal in 1783-4.

CHAPTER TWO

Mr. Parkinson's Neighborhood

In 1872, George Huntington described a hereditary variety of chorea, a condition characterized by involuntary movements, that he had observed in his medical practice and neighborhood:

“And now I wish to draw your attention more particularly to a form of the disease [chorea] which exists, so far as I know, almost exclusively on the west end of Long Island. It is peculiar in itself and seems to obey certain fixed laws . . . [C]horea, as it is commonly known to the profession . . . is of exceedingly rare occurrence there . . . The *hereditary* chorea, as I shall call it, is confined to certain and fortunately a *few* families, and has been transmitted to them, an heirloom from generations away back in the dim past. It is spoken of by those in whose veins the seeds of the disease are known to exist, with a kind of horror, and not at all alluded to except through dire necessity, when it is mentioned as “that disorder.””¹

Chorea had long been a familiar diagnosis, but Huntington's account clarified the way a particular variant of the disease appeared and reappeared in certain families in the west end of Long Island. As Alice Wexler has shown, Huntington based his conclusions on long familiarity with, and observation of, the people who lived around him. He discerned the disease's patterns of inheritance by knowing his neighbors: not only their medical problems, but their behavior, their relationships, and their families as well.²

Huntington's article appeared fifty-five years after Parkinson's *Essay*, and the reasoning that led Huntington to see the disease's hereditary pattern was necessarily different from the reasoning that led Parkinson to the shaking palsy. But understanding

¹ This was Huntington's first description of the condition now known as Huntington's disease. George Huntington, “On Chorea,” *The Medical and Surgical Reporter* 1872; 26(15): 317-21, p. 320.

² See Alice Wexler, “Chorea and Community in a Nineteenth-Century Town,” *Bulletin of the History of Medicine* 2002; 76: 495-527; *The Woman Who Walked into the Sea: Huntington's and the Making of a Genetic Disease* (New Haven: Yale University Press, 2008); and *Mapping Fate: A Memoir of Family, Risk, and Genetic Research* (New York: Times Books, Random House Press, 1995).

how Huntington drew his conclusions can shed light on Parkinson's thinking. Like Parkinson, Huntington was a trained observer; he was also an artist, adept at visual nuance, whose visual training helped prepare him to note the manifestations of "that disorder" that developed in his patients and neighbors. But he also happened to live in a place where many of the neighbors had the condition to observe. The disease had to be present, and he had to be embedded in the community, to be able to see it.³

The situation was similar for Parkinson. To discern the shaking palsy, he had to be in an environment where enough people had the disease to allow its pattern to emerge. He had to see the disease more than once, to differentiate it from the myriad other conditions it might be confused with, and to identify it as something different from them. To be able to do this seeing and sorting, Parkinson had to be familiar with the other conditions that could cause people to move abnormally and to recognize that what he was seeing was different from them. For that, he needed an environment with enough people who moved abnormally in enough different ways to allow him to become familiar the spectrum of abnormal movements, their range and diversity.

Paradoxically, it was the breadth of this spectrum, and the number of sufferers, that threatened to obscure the relatively rare condition he was identifying. Among the myriad people who moved oddly, he had to be able to identify a pattern of movements that was present in a very few sufferers, and to realize that he had neither seen it before nor seen it described in the medical literature before. But most important, he had to be in an environment where this rare condition was there to be seen.

³ Wexler notes that her work on Huntington's looks at "the social experience of the early doctors who helped define the disease, since they came from the same communities as the people whose lives they described—as observers they occupied the same space as the observed." *The Woman Who Walked into the Sea*, p. xxii.

The shaking palsy, as Parkinson notes in the *Essay*, is a disease that affects older people. Thus, the kind of environment that would be most likely to harbor enough cases of the disease to allow recognition of the pattern would be home to a large number of older people, especially frail or disabled older people. Such an environment would serve to concentrate the number of people with the shaking palsy. The disease is disabling, and sufferers would be found most among disabled aged people. The best kind of environment for seeing and becoming familiar with the *other* problems that affect mobility would be one in which were concentrated people with all kinds of disability, whether from disease, injury, or congenital deformity.

Parkinson's neighborhood was just such an environment, one that was home to the necessary population for him to train his eye on, just as Huntington's in Long island was for hereditary chorea, but in very different ways from Huntington's Long Island. The geographically small and densely populated Hoxton neighborhood of Shoreditch, where Parkinson spent his whole life, was disproportionately populated with older people and with the particular groups of disabled people who would have been likely to move abnormally: the mad; the poor who were unable to work because of illness or injury; people with venereal disease; and people who drank too much.⁴ The specific sites of Parkinson's practice, including a local madhouse and the parish workhouse, would have further intensified his contact with these groups of people.

This chapter will examine the environment and institutions of Parkinson's Hoxton neighborhood: the disabling conditions that one might have encountered there; the population and situation of old people; the clustering of almshouses and the implications

⁴ Alcohol may have been distributed all around London, but contemporary accounts of its ravages in poorer neighborhoods are striking, and Shoreditch was a center of brewing and distilling.

of their presence; the proximity of the parish workhouse and several large madhouses, with their high prevalence of crippling disease, and Parkinson's role in them; and the clustering of other, less visible institutional housing for the poor and mad in Hoxton that further concentrated its population of disabled people.

Although very few documents survive to tell us about the texture of Parkinson's day-to-day work in Hoxton or about what he was doing at any given time, it is clear that this neighborhood is where he was working and where he was doing his observing.

Shoreditch: Mr. Parkinson's Neighborhood

During Parkinson's years in practice, as Shoreditch became increasingly impoverished, wealthy people were less and less in evidence in the East End. He frequently visited patients in their homes, and his patients may have included some wealthy people, but most of his work involved care of the poor and the mad in dispensaries and institutional settings. Such a practice would have been very different from that of a physician caring for a more upscale clientele in the West End.⁵ The pace would have been different, for one thing, and the East End's institutional settings and crowding would have exhibited disease and disability in the aggregate more clearly than a more leisurely practice in a more geographically spread-out neighborhood. The Hoxton area was compact enough that Parkinson probably walked from place to place, rather than

⁵ On the contrast between the East and West Ends, see Tim Hitchcock and Robert Shoemaker, Project Directors, "London Lives." "In 1760 you could still find some wealthy individuals amongst the poor of the East End. But, by the early nineteenth century the city had become increasingly subdivided between rich and poor, with the middling sort dispersed somewhat more widely across the city. By 1815 a member of the gentry would no more consider leaving his West End haunts to walk to the East End than he would consider walking to the moon. The East End became the home of manufacturing, of brewing and distilling, sugar processing and textiles. In combination with the ever-hungry maw of the port, its industries consumed the lives of generations of workers." www.LondonLives.org, accessed 4/29/13.

using carriages or riding. These walks would have given him an opportunity to watch the people on the street and to observe the range of their problems.⁶

From the perspective of a twenty-first-century reader, it is hard to imagine the sheer variety of impaired mobility and disordered movements that one would have encountered during an ordinary saunter through the right streets of London in 1800. The scope and spectrum of suffering and disability, and simply of odd ways of getting around, would have been dizzying. Because difficulties with mobility *per se* rarely came to attention of medical practitioners in a way that led them to be listed as medical problems for which patient sought help or provided payment, the specific nature of the disturbances is often unclear in retrospect. Exactly what these patterns of mobility looked like remains hazy.

As Margaret Pelling has noted, it is easier to reckon mortality than morbidity in the past, especially chronic disabling disease, but it was the morbidity that disabled people and led them into poverty and, in dire circumstances, the workhouse.⁷ Severe disability thus becomes visible, in retrospect, when it prevented people from working, draining their families' resources, temporarily or permanently changing individuals' or families' social and economic status, and leading to the need for charity and encounters with the Poor Law. The disability came from many sources: usually congenital problems, traumatic injury, or disease, but also often from work itself.

⁶ For a description of Parkinson's neighborhood, the buildings he would have passed in the course of his work, and the buildings that survive from his day, see David R. Williams, "James Parkinson's London," *Movement Disorders* 2007; 22(13): 1857-9, and the accompanying twelve-minute film of the same title, produced and directed by David R. Williams and narrated by Gerald Stern (viewable at <http://www.youtube.com/watch?v=YLeSNtt7-h4>).

⁷ When they were chronic, problems of mobility did not directly lead to death in a way that would show them in burial and death records. Margaret Pelling, *The Common Lot: Sickness, Medical Occupations, and the Urban Poor in Early Modern London* (London and New York: Longman, 1998), pp. 63-6.

In some ways, the world of the late eighteenth and very early nineteenth centuries was the tail end of the early modern period, with the same kinds of deformity and disabling illnesses.⁸ Physical injury was exceedingly common and left substantial deformity and impaired mobility in its wake. Fractures often mended badly, leaving limbs foreshortened or bones bent. Bodies were shattered in accidents and battle; injured limbs were often amputated. Damaged muscles and severed tendons often healed badly or went unrepaired, undermining strength, limiting the range of a person's motion, and making simple tasks like the raising of a hand above the head arduous or impossible. Injuries to the nervous system or lower extremities made gaits asymmetric, inefficient, painful, and exhausting. Injuries to the head, neck, and back damaged brains, spinal cords, and nerves; severed nerves left muscles immobile. Injuries to the central nervous system left people weak or partially paralyzed or unable to speak. Burns and scalding injuries left people disfigured and tethered by scars that impeded their ability to move. Wars left a huge spectrum of injuries in their wake.

One picture of the disabling injuries for which eighteenth- and early-nineteenth century Londoners in Parkinson's neighborhood were at risk emerges from the Middlesex

⁸ The similarities can be seen from examination of the conditions described in Pelling, *The Common Lot*, which are not so different from those described by Mary Fissell in *Patients, Power, and The Poor in Eighteenth-Century Bristol* (Cambridge: Cambridge University Press, 1991); by Tim Hitchcock in *Down and Out in Eighteenth-Century London* (London and New York: Hambledon, 2004); or, from another perspective, by Irvine Loudon in his enumerations of conditions treated by surgeons and medical practitioners, *Medical Care and the General Practitioner, 1750-1850* (Oxford: Oxford University Press, 1986). The work of Thomas Forbes, examining reported causes of death during specific time intervals and in specific parishes in London, shows a remarkable continuity of categorization through the early nineteenth century, when a different kind of precision supervened. See Thomas Forbes, "Burial Records for the Parish of St. Anne Soho, London, 1814-1828," *Yale Journal of Biology and Medicine* 1974; 47: 93-100; "By What Disease or Casualty: The Changing Face of Death in London," *Journal of the History of Medicine and Allied Sciences* 1976; 32(4): 395-420; "Mortality Books for 1774-1793 and 1833-1835 from the Parish of St. Giles, Cripplegate, London," *Bulletin of the New York Academy of Medicine*, Second Series, 1971: 47(12): 1524-36; and "Mortality Books for 1820 to 1849 from the Parish of St. Bride, Fleet Street, London," *Journal of the History of Medicine and Allied Sciences* 1972; 37(1): 15-29. While none of these works can specify population incidences and prevalences of the listed conditions, certain conditions appear and reappear in these works. The present paragraphs are based on those accounts.

Coroner's Inquests into Suspicious Deaths between 1747 and 1842; Shoreditch was a part of Middlesex.⁹ These inquests, addressing about one per cent of all deaths, describe only injuries that were severe enough to kill, but the many injuries that fell short of killing, leaving people maimed, probably had similar sources. Drowning, falling from high places, falling down stairs, and falling from a horse all figure prominently, as do various kinds of road accidents. Many people were run over by, or thrown from, horses, carts, carriages, and wagons; others were injured in their collisions. People died in house fires; they were burned or scalded in cooking fires and workplaces. Before the passage of the London Building Act of 1774, and even in many instances afterwards, when many suburban developments were haphazardly planned and built with poor materials, house collapses were common, with inhabitants or whole families crushed in their beds. People were attacked and murdered; others committed, or at least attempted, suicide.

There were also the permanent effects of disease or its treatment: the ravages to skin and bone and nerve of venereal disease; the huge variety of tuberculous lesions in lungs, bone, skin, and soft tissue; the deforming effects of rickets, softening skulls, vertebrae and long bones, deforming heads, bowing legs and hunching backs; and the debilitating effects of mercury and other ingested remedies. One condition that was vastly more prevalent and disabling in the late eighteenth and early nineteenth centuries than later, but that was largely non-fatal, was leg ulcers, which sometimes required amputation. About one third were present for over a year, and they afflicted, by some accounts, as

⁹ For transcripts of these inquests, see "Middlesex Coroners: Coroners' Inquests into Suspicious Deaths, 1st September, 1747- 13th June, 1803" [632 cases], viewable on the website "London Lives." Tim Hitchcock and Robert Shoemaker, Project Directors, "London Lives," www.londonlives.org, accessed October 8, 2012. A very high proportion of these deaths were by drowning. See also Thomas R. Forbes, "Coroners' Inquests in the County of Middlesex, 1819-42," *Journal of the History of Medicine and Allied Sciences* 1977; 32(4): 375-94, for an analysis of accidents by cause and setting.

many as one in five young adults, men more often than women, often disabling people between 20 and 40 years old.¹⁰

Mixed among these varieties of deformity and impaired mobility were the rarely differentiated conditions that produced tremors and staggering gaits: the fits stemming from epilepsy and other disorders; the bizarre and sometimes theatrical movements of the mad; the slowed, weakened and shaking movements of the aged and ill; and the reelings from alcohol and twitchings from alcohol withdrawal.

In terms of specific diagnosis, or of the taxonomy of illness and disability that one might have encountered on the street, there appears to have been a kind of undifferentiated ubiquity that makes specific characteristics difficult to analyze in retrospect. Abnormal movements, especially those resulting from acute disease or injury, were seen as appropriate for medical or surgical treatment. Certainly broken bones were set, and practitioners did their best to repair and remedy other kinds of damage. There is ample evidence that people of all social strata sought help, from different kinds of practitioners, for painful, disabling, deforming, or disfiguring conditions.¹¹

But once injuries were no longer in the process of healing, any lasting deformities

¹⁰ Irvine Loudon speculates, as medical practitioners and naval surgeons surmised at the time, that many of these leg ulcers were related to scurvy, another disturbingly disabling and disfiguring disease of the era; they often preceded outright scurvy in individual seamen. See Irvine Loudon, "Leg Ulcers in the Eighteenth and Early Nineteenth Centuries" and "Leg Ulcers in the Eighteenth and Early Nineteenth Centuries: II. Treatment," *Journal of the Royal College of General Practitioners* 1981; 31:263-273 and 1982; 32: 310-309. The "one in five" observation, quoted in Part I of this study (p. 263), comes from Charles Brown, "On the Necessity of Establishing a Hospital for the Treatment of Ulcerated Legs," *Medical and Physical Journal* 1800; 3: 135-6: "[I]t is a very melancholy fact that among the lower classes of the community, nearly in the proportion of one out of five, labour, and have many years, under this severe affliction." Loudon corroborated Brown's observation by determining that 42% of the medical and surgical admissions to the Bristol Infirmary in 1800 were for leg ulcers; that between 1760 and 1800, leg ulcers accounted for between 16% and 23% of inpatient admissions at the Devon and Exeter Hospital; and that, among the laboring poor, they were fifty to one hundred times more prevalent then than now. "Leg Ulcers," pp. 263-4.

¹¹ See, for example, Pelling, *The Common Lot*, especially chapters 1, 3 and 6; and Loudon, *Medical Practice*, for the range of conditions for which people sought and received treatment. The conditions listed here are those that would have led to visible disability.

they left in their wake, while remaining medical or surgical conditions in one sense, became fixed attributes in another, functioning as signifiers about the person who harbored them. Here, they seem to have joined, categorically at least, the congenital deformities that defined people from youth. They metamorphosed from acute injuries or illnesses into characteristics of the people who bore them, coming partly to identify, classify, and define them-- simply as “lame,” for example—a word that spanned a multitude of reasons for being unable to walk normally.

Such marks on the body served to place people socially. Once they were truly chronic, they appear to have lost their distinctive histories and characteristics to become subsumed into the larger category of lameness. The many ways people came to be disabled, whether from problems present at birth, or from injuries, or from the lasting but stable effects of an acute disease, or, most important for this discussion, from the progressing effects of a chronic disease, were not distinguished. When the disabled were viewed in this way, as a social category, the progressive disabling illnesses, the illnesses that slowly debilitated people, inducing frailty and debility as a special kind of disability, were not differentiated from the many other causes of fixed disability.

Some of these issues continue to be reflected even now in scholarship about the history of disability, within the discipline of Disability Studies. In a recent examination of the history of disabilities and the history of disease, Beth Linker noted the tendency of disability scholars to focus on the healthy disabled rather than on those whose disability resulted from a problem that causes continuing chronic illness and the continuing need for medical attention.¹² In their efforts to distinguish disability from disease, and to de-

¹² See Beth Linker, “On the Borderland of Medical and Disability History: A Survey of the Fields,” *Bulletin of the History of Medicine* 2013: 87(4): 499-535, p. 525: “In addition to exposing the social

medicalize discussions of impairments, such approaches have had the effect of marginalizing disability that results from continuing disease and that causes illness in addition to disability. In such discussions, the people whose disability comes late, makes them ill, and progresses relentlessly—a category that would include sufferers from the shaking palsy—tend to disappear.

David Turner, in his work on disability in the eighteenth century, notes the rarity of discussions of mobility and disability in contemporary medical discussions of disabling conditions as well: “Despite the publication of a number of landmark works on anatomy and monographs on particular conditions, there is little evidence that the medical profession as a whole was interested much in disability before the twentieth century.”¹³

If impaired mobility was not always finely scrutinized medically, it nonetheless evoked strong and pervasive associations of other kinds that may in fact have obscured its

injustices that the disabled have faced in many historical times and places, most books within the field of disability history share another essential commonality: they tend to focus on the healthy disabled.” Citing the work of Susan Wendell in clarifying this distinction, and the work of Julie Livingston on debility, Linker notes that minimizing the struggles of illness “has led disability scholars to neglect the realities of impairment leaving people like [Wendell] herself—who seek out medical intervention and who live their lives disheartened by pain, fatigue, depression and chronic illness—relegated on the margins of the movement . . . The history of debility—the place where impairment, chronic illness and senescence meet—is a research agenda wide open for study.” Linker, p. 526. See also Susan Wendell, “Unhealthy Disabled: Treating Chronic Illnesses as Disabilities,” *Hypatia* 2001: 16(4): 17-33. That some of the kinds of disability at issue here, specifically the acquired impairments of mobility that result from injury or disease, often late in life, are a bit marginal to what have been, until recently, the main concerns of Disability Studies is also evident, for example, in Catherine Kudlick’s review essay, “Disability History: Why We Need Another Other,” *American Historical Review* 2003; 108(3): 763-93. The review is exhaustive, but among the acquired disabilities discussed, or even alluded to, neither the acquired disability that results from chronic disease or injury nor cognitive impairment that develops in old age appears as a relevant category of disability. In addition to the emphasis in the field on “healthy” disability, there seems to be an emphasis on relative youth.

¹³ See David M. Turner, *Disability In Eighteenth-Century England* (Hoboken: Taylor and Francis, 2012), p. 148. Turner describes the rare representation of impaired mobility that appeared in a literary work: “In one of the few accounts published in the eighteenth century to consider the *mobility* implications of physical disability, the *Surprising Memoirs* painted a vivid picture of how disability might alter one’s relationship with time and space,” that is, that it might take a disabled person a long time to get somewhere. *Disability*, p. 79; Turner here is citing *Surprising Memoirs of the Meeting, Courtship, and Sundry Other Humourous Adventures of the Most Renowned Cripple-Beggars, Manupedirus and Stumpanympha* (Dublin: George Faulkner, 1734), pp. 3-4.

“disease” as well as its “disability” qualities.¹⁴ As Simon Dickie has convincingly and unflinchingly shown, disabilities were seen in the eighteenth century not only as emblems of personal identity, but as the stuff of often cruel comedy.¹⁵ Studying the popular literature of eighteenth-century England, including the jokes, handbills, and rhymes, and the jestbooks sold by itinerant peddlers, Dickie has located an extraordinary trove of jokes about hunchbacks, the blind, the deaf, and all sorts of other categories of unfortunates: people who used crutches, people with speech impediments, the elderly.¹⁶

Among the groups joked about and mocked were the lame and people who shook. Dickie describes gentlemen intentionally hiring waiters who had a limp or tremor so that they could be berated and tossed downstairs for spilling food.¹⁷ There was also a performance aspect to these disabilities; they became motifs in scripted and familiar theatrical routines. Dickie quotes a description from *Lambranzi's School of Theatrical Dancing* (1716):

“Here two old women enter and dance, half-walking, half-shaking, as far as possible to the extreme front of the stage. Then they scratch themselves before

¹⁴ According to Beth Linker, while the word “disability” had long been in use to describe incapacity or weakness, English-speakers tended to apply the words “freak,” “cripple,” “lame,” and “maimed” to describe people with disabilities. Linker, “Borderland,” p. 505: “Of all the categories listed, freakery has been studied the most,” footnote, p. 505.

¹⁵ See Simon Dickie, *Cruelty and Laughter: Forgotten Comic Literature and the Unsentimental Eighteenth Century* (Chicago: The University of Chicago Press, 2011): “Eighteenth-century Britons-- or a high proportion of them-- openly delighted in the miseries of others. Women as well as men laughed at cripples and hunchbacks. They tormented lunatics and led blind men into walls . . . Social hierarchies were part of God's plan, and those less favored were habitual figures of fun . . . That is not, safe to say, our prevailing image of the mid-eighteenth century. Recent scholarship has created a much kindlier picture, stressing benevolence, polite manners, Enlightenment rationality, and an increasing idealization of women. Social historians have described a dynamic “consumer society,” a world of coffeehouses, pleasure gardens, and concert rooms,” p. 1. Thanks to Kevin Siena for directing me to Dickie's work.

¹⁶ “British jestbooks [of the mid-eighteenth century] are full of jokes about cripples, hunchbacks, blind men, and desperate beggars. One finds an almost encyclopedic range of jokes about the deaf. Some texts even separate out the deformity jokes in categories—“Of Crookedness and Lameness,” “Of Noses,” “Of Deaf Folk,” “Of Faces and Scars.” Noselessness was evidently a particularly amusing affliction—perhaps because it reduced one to an animal state (man, it was said, was the only being with a true nose),” Dickie, *Cruelty and Laughter*, p. 18. Noselessness may also have been “funny” because of its association with syphilis.

¹⁷ Dickie, *Cruelty and Laughter*, p. 74.

and behind, spin round and go back to whence they began, with their backs to the audience, where they perform the same gestures . . .”¹⁸

Here, shaking was not a condition to diagnose, but part of a comical dance, to laugh at.

This is not to say that abnormal movements were not medically categorized, because to a certain extent, especially in the many taxonomies of disease and nosologic compendia of the day, they were. But the connections between the nuanced distinctions found in those taxonomies of disease and the ordinary practice of medicine—that is, diagnosing and treating people whose inability to move properly was impairing their everyday function-- may have been tenuous. In any event, the connections remain rather elusive.¹⁹ Mobility problems, for all their ubiquity, nonetheless often remained under the threshold of practitioners’ attention. Their very commonness may have rendered them nearly invisible to medicine, though not to comedy, as Simon Dickie shows.

The Old

Because the shaking palsy had not been described before Parkinson’s *Essay*, it is, in the strictest sense, impossible to know that the disease he was describing distributed itself among the population then the way it does now: more or less evenly in men and women, with a possible preponderance in men, and almost entirely in older people. In the absence of evidence to the contrary, it is also impossible to know that it did not. Similarly, one cannot be completely sure that the disease Parkinson described took the same form then as now; there is no simple way to look at an earlier aggregate of people suffering from a problem that had not yet been identified, when the only construct for grouping

¹⁸ Dickie describes this as a manual routinely used by dance historians to reconstruct what happened on the London stage. *Cruelty and Laughter*, p. 64.

¹⁹ The discontinuity between the classificatory schemata of disease detailed in nosologic texts and day-to-day diagnosis and treatment was substantial at this time; it will be discussed further in Chapter 4.

them together did not exist at the time.²⁰ But the disease does seem to have occurred disproportionately in older people—all of Parkinson’s cases were older men. It thus makes sense that the shaking palsy would have been more prevalent in environments with large numbers of old people.

Old people were not the rarity in late eighteenth- and early nineteenth-century England that they are sometimes assumed to have been. Life expectancy was low, but it was pulled down by the high rates of infant and childhood mortality. While life expectancy at birth in England remained about 35 years from the mid-sixteenth century through 1800, those who survived infancy and early childhood had a good chance of living to middle age, defined as the later forties and fifties, and even into old age, deemed in most sources to begin at 60, and in some at 70. Women lived, on average, a couple of years longer than men.²¹

That many people survived to old age should not suggest that old age was easy, as it was not, especially for people who had performed manual labor. Many older people had accumulated impairments and miseries: stooped postures, chronic diseases, missing

²⁰ I am unaware of evidence to the contrary, and there are reasons to think that the condition’s distribution in the population, especially its almost unique occurrence in older adults, is similar now to what it was then. Individual signs and symptoms that Parkinson included in his picture of the shaking palsy had been noted before him, and some had been noted to occur only in old people. Sauvages had characterized the disease’s peculiar running gait, for example, describing it as rare and present only in old people. Some recent work on the history of neurology questions whether the disease existed at all before Parkinson’s time, or, if it did, whether its incidence was different from now. See Chapter 4 for discussion of this issue.

²¹ See M. Dorothy George, *London Life in the Eighteenth Century* (London: Kegan Paul, Trench, Trubner & Co. Ltd., 1925), p. 203. See also Pat Thane, *Old Age in English History: Past Experiences, Present Issues* (Oxford and New York: Oxford University Press, 2000), pp. 19-27; and Susannah R. Ottaway, “Who Was “Old” in Eighteenth-Century England?,” *The Decline of Life: Old Age in Eighteenth-Century England* (Cambridge: Cambridge University Press, 2004), pp. 16-64. See also Lynn A. Botelho, and Susannah R. Ottaway, eds., *The History of Old Age In England, 1600-1800* (London: Pickering & Chatto, 2008), 8 vol., particularly vol. 2, *The Cultural Conception of Old Age in the Eighteenth Century*, edited by Susannah R. Ottaway. Population age structures in England varied from place to place, depending on local conditions and on in- and out-migration; information for periods before the compulsory registration of births and deaths was instituted in 1837 must be estimated from other kinds of sources. This information was recorded better in some parishes than others. Old age was often reckoned more by physical condition than by chronologic age.

teeth, aches and pains, impaired hearing and vision, etc. But older people were present at this time in large numbers in the society. In the first part of the eighteenth century, people over 60 made up about 10% of England's population, a percentage not reached again until quite recently. In 1811, they made up about 7% of the population.²²

Before the nineteenth century, old age, or being old, was reckoned chronologically, but also functionally; people were also deemed old when their bodies had become old and they were no longer able-bodied enough to work.²³ Particularly among the aged poor, the prevalence of disability was very high.²⁴ It was often the accumulated effects of labor itself that aged people, breaking them after a time, and ultimately rendering them unable to continue the kind of labor that had disabled them. Heavy work tended to rupture muscles, injure joints, and induce hernias, to the point where there appeared to be a natural history of occupations, an expectancy of the time that a person could perform a certain kind of work before being disabled by it.²⁵ Dorothy

²² E. A. Wrigley and R. S. Schofield, *The Population History of England, 1541-1871: A Reconstruction* (Cambridge: Cambridge University Press, 1989), p. 529 (Appendix 3, back-projection results). See also John Landers, *Death and the Metropolis: Studies in the Demographic History of London 1670-1830* (Cambridge: Cambridge University Press, 1993), p. 111, on the age-specific burial rates in London between 1735 and 1824. During the period between 1800 and 1824, people aged 50-59 accounted for 9.4% of London burials; people aged 60-69 for 10.0%; and people aged 70 or older 11.2%. Thanks to Graham Mooney for help interpreting the historical demographic sources here.

²³ See Thane, *Old Age*, p. 19: "Before the nineteenth century precise age was rarely required of people of any age, because physical condition did not necessarily correspond with chronological age, and physical fitness was the more important of the two for a worker, soldier, taxpayer, or pauper, the reasons for which most people encountered officialdom."

²⁴ In her work on sixteenth-century Norwich, Margaret Pelling noted both the relatively high proportion of the population that was over 60 and the high prevalence of disability among the poor. She notes that "the aged poor stood about a one-in-four chance of also being severely disabled. For the elderly English population of Norwich as a whole, the chance of sickness or disability was at least one in ten." Pelling, *Common Lot*, p. 75. Norwich was not London, and the sixteenth century was not the eighteenth or nineteenth, but, as noted above, the prevalence of disability was likely similar. Simon Dickie observed in his own work on disability in the eighteenth century, "The extent of old-age disability has not, to my knowledge, been studied for the eighteenth century. I am here using, as a rough comparator, Margaret Pelling's work on sixteenth-century Norwich." *Cruelty and Laughter*, p. 302, note 189.

²⁵ Parkinson was concerned enough by the prevalence and consequences of hernias to the laboring poor, as well as the cost of apparatus used to treat them, that he wrote a short book describing a design for a simple truss that the laboring poor could afford. James Parkinson, *Hints for the Improvement of Trusses; Intended*

George cites Adam Smith's observation that a London carpenter was not supposed "to last in his utmost vigour above eight years."²⁶

Shoreditch and its Almshouses

Two contemporary works describe the late eighteenth-century Shoreditch that Parkinson inhabited: a short sketch by "A Parishioner," published in 1788 in *The Gentleman's Magazine*, and a 370-page book published a decade later by Henry Ellis, *The History and Antiquities of the Parish of Shoreditch, and Liberty of Norton Folgate, in the Suburbs of London*.²⁷ Neither work dwells on Shoreditch's poverty or population *per se*. Both characterize the features and organization of the area rather than the situations of any particular inhabitants. The Parishioner notes that in 1788, the four liberties of Shoreditch, an area 645 acres, or a little more than one square mile, had about 20,000 inhabitants and 2502 houses.²⁸

to Render Their Use Less Inconvenient, and to Prevent the Necessity of an Understrap. With the Description of a Truss of Easy Construction and Slight Expense, for the Use of the Labouring Poor. (London: H. D. Symonds, 1802).

²⁶ According to Pat Thane, "It was long assumed that most male manual workers could not remain fully active at their trades much past 50, especially when performance depended on such physical attributes as good eyesight." *Old Age*, p. 25.

²⁷ See A Parishioner, "A Short Description of Shoreditch Parish, in the County of Middlesex," *The Gentleman's Magazine*, 1788; 58 (5): 956-8; and Henry Ellis, *The History and Antiquities of the Parish of Shoreditch, and Liberty of Norton Folgate, in the Suburbs of London* (London: Printed by and For J. Nichols, Printer to the Society of Antiquaries, 1798).

²⁸ He notes that "[A plan of the parish published in 1745] makes the number of houses then 2502: so many have been built since, that I compute their number now not less than 2700." A Parishioner, "Shoreditch," p. 956. The 1745 survey may be part of the survey work that John Rocque did between 1741 and 1745, in preparation for publishing his detailed 1746 map of London: John Rocque, *A New and Accurate Survey of the Cities of London and Westminster, the Borough of Southwark, with the Country about it for Nineteen Miles in Length and Thirteen in Depth, in Which is Contain'd an Exact Description of St. James's, Kensington, Richmond, and Hampton-Court Palaces, All the Main and Cross Roads, Lanes and Paths, Bye-ways, Walls, Pales, Hedges, Hills, Vallies, Rivers, Bridges, Ferries, Brooks, Springs, Ponds, Woods, Heaths, Commons, Parks, Avenues, Churches, Houses, Gardens, &c.* By John Rocque, Surveyor. Begun in 1741, and Finished in 1745, and Publish'd in 1746, According to Act of Parliament (London: Sold by the Proprietor John Rocque, Next Door to the Duke of Grafton's Head, in Hyde Park-Road, 1746). A searchable version of this map is available at <http://www.locatinglondon.org/?#>. Henry Ellis, writing in 1798, says "[I]n 1786, the number of *assessable* houses amounted to 1890 . . . In 1735, at the time of

By 1801, the year of the first London census, Shoreditch had 34,766 inhabitants and 5,732 houses, making it one of the most densely populated places in England. An examination, in chronologic order, of the many detailed maps made of London during the eighteenth and early nineteenth centuries, including those made by John Rocque, shows how startlingly quickly the northeast quadrant of London, Shoreditch in particular and the environs of the City of London in general, were being built up at this time.²⁹ As described by the Parishioner, Shoreditch consisted of the four liberties of Hoxton, Holywell-street, Church-end, and Moorfields and stood out for, among other things, its large number of almshouses and other institutions for housing the sick, the old, the poor, and those who could no longer work:

“In this parish are fourteen hospitals or buildings for alms-houses, eight of them in Church-end liberty; to wit, the Goldsmiths, near Hackney; the Framework-knitters, Ironmongers, and Drapers, in Kingsland-road; Judge Fuller’s, Walter’s, Watson’s, and Badger’s, near the church. In Hoxton liberty four, viz. Beremere’s, near the Crooked-billet; Westby’s, near the Ivy-house; Lumley’s near the Shepherd and Shepherdess; and the Haberdashers. In Holywell–street liberty, Garrett’s; and in Moorfields liberty, the Dutch almshouses: of all which, the Haberdashers are the grandest; but the Ironmongers are the most elegant and kept in best condition; as are also the trees, walks, and grass plats, thereunto belonging.”³⁰

These almshouses were residences established by charitable bequests for the benefit of specific groups, often people who had fallen on hard times who were related in some way

making the [unspecified] survey, the total number of houses in the parish was 2302 . . .” Ellis, *History and Antiquities*, p. 4.

²⁹ See A. D. Morris, *James Parkinson: His Life and Times*, edited by F. Clifford Rose (Boston, Basel and Berlin: Birkhäuser, 1989), p. 6, quoting the 1801 census. See also the sequence of maps available at <http://mapco.net/london.htm>, specifically, for the purpose of this project, two maps by William Darton: “The Strangers Guide Through the Streets of London and Westminster &c.: A New and Correct Plan of London and Westminster with the latest Improvements.” Wards Plan of London. Printed & Sold by W & T. Darton, Holborn Hill. Pubd. Jany 12th 1814 by Willm. Darton, 58 Holborn Hill, London (London: William Darton, 1814); and William Darton, “An Entire Plan Of the Cities of London and Westminster, & Borough of Southwark; The East and West India Docks, Regents Park, New Bridges, &c &c. With The Whole Of The New Improvements Of The Present Time,” Published July 1st 1817 by W. Darton, Junr. 58 Holborn Hill (London: William Darton, 1817).

³⁰ Parishioner, “Shoreditch,” pp. 956-7.

to the trade, guild, or Livery Company of the person making the bequest. The Parishioner does not differentiate here between almshouses and hospitals, thereby suggesting that they had related functions; “the Haberdashers,” for example, is called the Haberdashers’ Hospital elsewhere. But he does differentiate them both from workhouses, of which Shoreditch also had several:

“Here are, moreover, five work-houses, namely, the parish and Old-street (very grand buildings, each standing upon its parish freehold ground); Coleman–street, Norton-folgate, and Phillip’s . . .”³¹

The Parishioner’s distinction between almshouses and workhouses likely stems not from their function, but from the usual means of their support. Almshouses were established and then supported through personal charity and charitable bequests; workhouses were established through the Poor Law as part of the parish’s provision for the poor.

Henry Ellis’s book about the history and antiquities of Shoreditch describes these almshouses in more detail, liberty by liberty, specifying the bequests that established them, their locations, and the people they were designed to aid. Several almshouses consisted of groups of existing adjacent houses; others were specially built as almshouses for the purpose. Many of these buildings were close to Parkinson’s house in Hoxton Square; he would have encountered and observed their inhabitants often.

Beginning with the almshouses of Church-end, Ellis first describes “Morrel’s, or the Goldsmiths’, Almshouses,” located at the “extremity” of the parish on the Hackney Road:

“On the front is the following inscription, beneath the arms of the Goldsmiths’ Company: Anno Domini 1705. Then six Alms-houses were erected, by the worshipful Company of Goldsmiths of London, for the relief of six poor members of that Company, pursuant to the last will of Mr. Richard Morell, a late member of the same Company, who left a competent estate, in lands, for maintaining the

³¹ Parishioner, “Shoreditch,” p. 957.

same Alms-houses for ever.”³²

Ellis describes the other twelve Shoreditch almshouses in comparable detail. All of these institutions are listed by name, location, type, and type of inmates in Table 1, below.

Details about the provisions establishing them are listed in Appendix III. The buildings are highlighted, along with madhouses and workhouses, on the maps representing Shoreditch in 1814 and 1817, in Figures 1 and 2, also below.

One of these almshouses, Lumley’s, deserves mention because of the nature of the bequest establishing it. Located opposite St. Luke’s Workhouse and behind the public house called the Shepherd and Shepherdess, Lumley’s was established in 1672, “the gift of Lady Viscountess Lumley to St. Botolph Aldgate and St. Botolph Bishopsgate.” The original bequest specified “a house and land for ever for the use of the 12 poor people, that did or should inhabit the almshouse.” Further bequests were added, and four acres of pasture-ground in the parish of St. Leonard was purchased from the brewer William Dashwood on which “were built by the aforesaid parishes, 6 almshouses: 3 for Bishopsgate, and 3 for Aldgate, given and ordered by Lady Lumley.”³³ In this case, the land for housing the poor of the parishes of St. Botolph was found not in either of the St. Botolph’s parishes but in Shoreditch, in the parish of St. Leonard. As early as 1672, the seemingly suburban, somewhat central and somewhat peripheral area was viewed as an appropriate place for housing other Londoners who had become dependent, and even for constructing new edifices to move them to, as the Lumley almshouse built for the poor of the St. Botolph’s parishes suggests.

³² Ellis, *History and Antiquities*, p. 112.

³³ Ellis, *History and Antiquities*, pp. 148-9.

Table 1: Establishments for the Care of the Poor, Sick and Mad in Shoreditch

LIBERTY	KIND OF INSTITUTION	NAME	INHABITANTS
Church-end	Almshouses	Morrel's (Morel's) or Goldsmiths'	Six poor members of the Company of Goldsmiths
		Ironmongers	Ironmongers
		Drapers'	Six men and six women, three of each placed by the Company of Drapers and three of each placed by the parish
		Fullers	Twelve poor widows aged 50
		Walter's	Eight "distrest," quiet, honest, and godly poor widows, or single women
		Watson's or The Weavers'	Poor members of the Company of Weavers
		Framework-Knitters	[Framework-Knitters]
	Workhouse	Parish Workhouse	Parish poor (about 250 paupers)
	Madhouse	Whitmore's (Balmes House)	78 lunatics
Hoxton	Almshouses	Aske's or the Haberdashers' Hospital	Twenty poor members of the Company of Haberdashers; and the education of twenty boys, sons of "decayed freemen" of the Company
		Westby's	Ten poor women
		Lumley's	Twelve poor people of St. Botolph's Aldgate and St. Botolph's Bishopsgate
		Baremere's	Eight poor women
		Badger's	Six poor women [elsewhere, six poor aged men and their wives]
		Fuller's	Twelve Presbyterian women
	Madhouses	Burrows's (Holly House)	118 lunatics
		Hoxton House	348 lunatics
	Pauper Farms	Robertson's	300 paupers
		Tipple's	230-300 paupers
		Hughes and Phillips	?
Holywell Street	Almshouse	Garret's	Six "decayed" members of the Company of Weavers
Moorfields	Almshouse	The Dutch Almshouses	Four poor men belonging the Dutch Church in Augustine Fryars

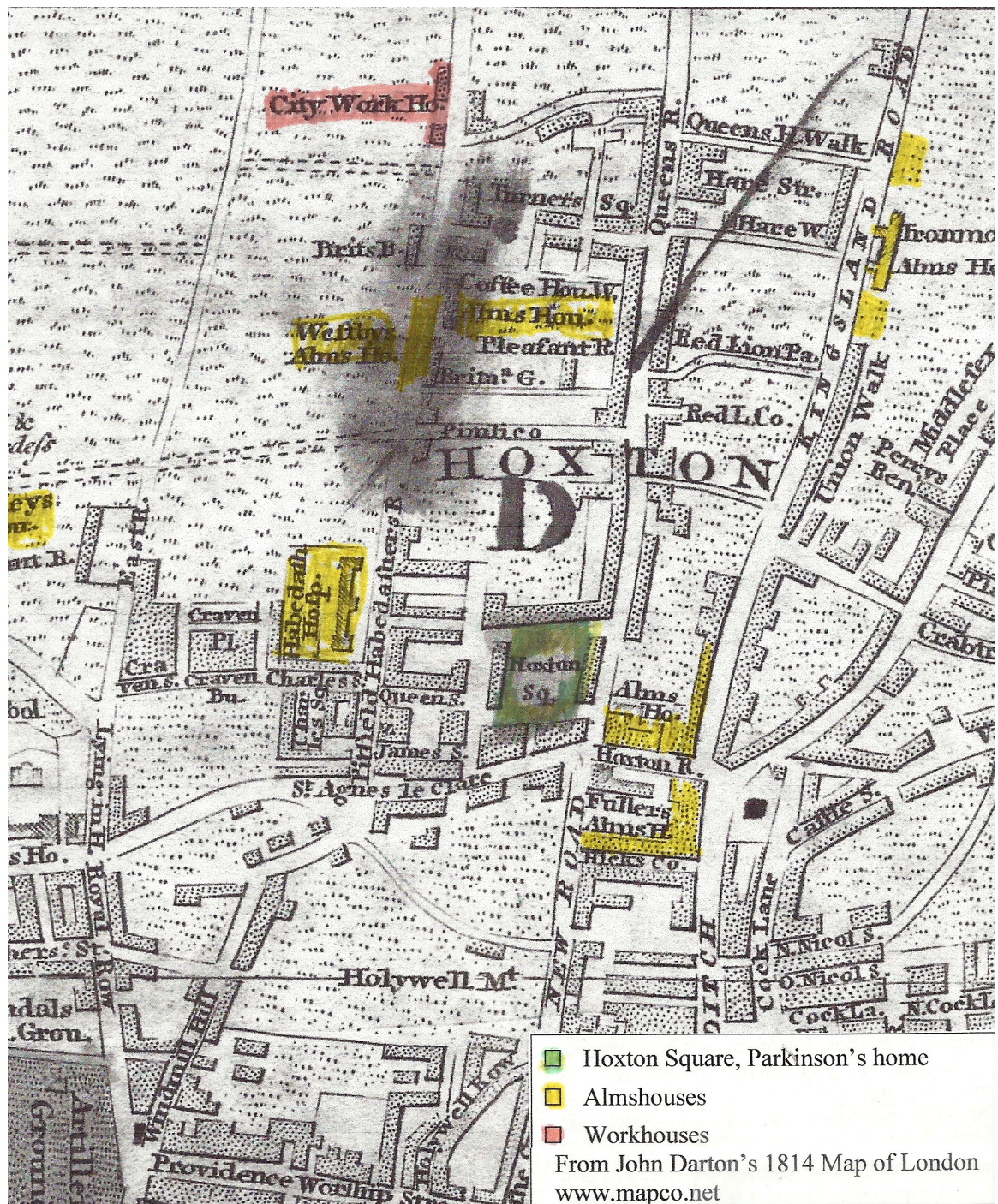


Figure 1: Map of Hoxton Liberty of Shoreditch in 1814

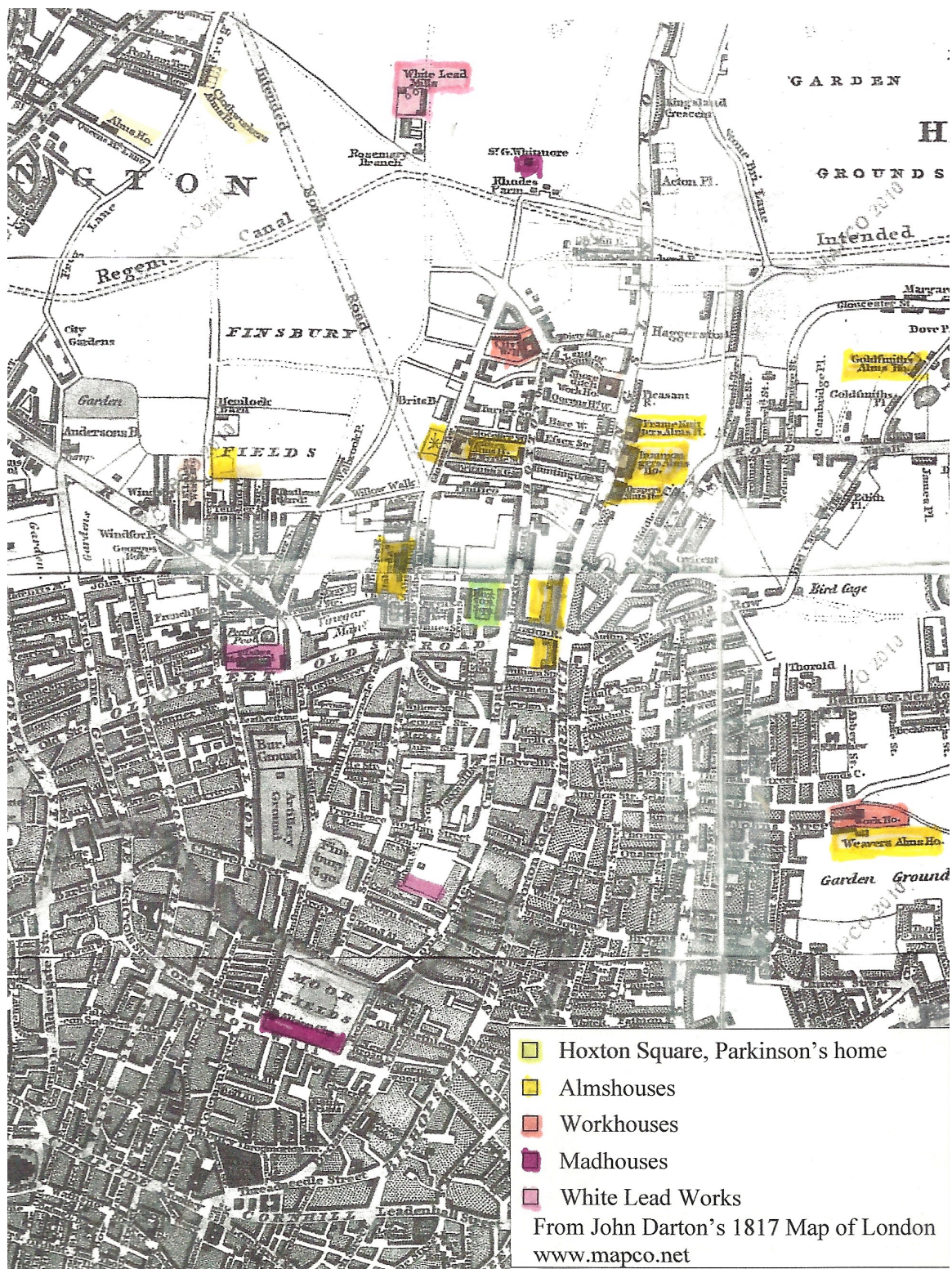


Figure 2: Map of Shoreditch in 1817

The presence of so many almshouses around Hoxton indicates a larger population of dependent older people in the neighborhood than would have been the case elsewhere: people who were poor or frail and lacked sufficient assistance to remain in their own homes. The fact that some of the individual almshouses in the neighborhood had been established for the poor of a particular occupation, such as goldsmiths, weavers, framework-knitters, or drapers, also meant that people who had practiced those trades, but who were now dependent on charity for whatever reason, would be there in neighborhood too.³⁴ They would have included people who become disabled as a result of their work or who, having become dependent for some other reason, also suffered from conditions resulting from their work.

In 1700, Bernardino Ramazzini published the first edition of *De Morbis Artificum* [*Diseases of Workers*], his classic account of occupational disease. The work, composed of separate chapters each describing a separate occupation, was soon translated into English and was widely read.³⁵ Ramazzini introduced the topic by differentiating between injury resulting from the physical demands of work and disease resulting from the substances used by workers:

“Various and manifold is the harvest of diseases reaped by certain workers from the crafts and trades that they pursue; all the profit that they get is fatal injury to

³⁴ People involved in the cloth trades, particularly weavers, were especially subject to economic downturns and endured terrible poverty in this period; they were concentrated in Shoreditch and nearby Bethnal Green. See George, *London Life*, pp. 185-6.

³⁵ The 1700 edition was translated anonymously in 1705. Ramazzini revised the book, added twelve new chapters, and published a new edition in 1713. Dr. Robert James (author of *A Medicinal Dictionary* and of fever powder fame) translated the new chapters and appended them to the older edition and published his ‘new’ translation in 1746. Ramazzini’s work has recently been retranslated into English more completely and exactly. See Bernardino Ramazzini, *Diseases of Workers*. Translated from the Latin text *De Morbis Artificum* of 1713 by Wilmer Cave Wright (New York and London: Hafner Publishing Company, 1964), translator’s preface, p. vii. George, *London Life*, describes the book as the standard work on industrial disease in the eighteenth century, p. 204. Henry Sigerist describes the book’s being widely consulted during the early nineteenth century as well, noting that “the 18th century had very little to add to what Ramazzini had said.” Henry Sigerist, “The Wesley M. Carpenter Lecture: Historical Background of Industrial and Occupational Diseases,” *Bulletin of the New York Academy of Medicine* 1936; 12(11): 597-609, p. 605.

their health. That crop germinates mostly, I think, from two causes. The first and most potent is the harmful character of the materials that they handle, for these emit noxious vapors and very fine particles inimical to human beings and induce particular diseases; the second cause I ascribe to certain violent and irregular motions and unnatural postures of the body, by reason of which the natural structures of the vital machine is so impaired that serious diseases gradually develop therefrom.”³⁶

The health of workers thus could be damaged not only by the mechanical stresses of heavy work but through repeatedly touching or inhaling a toxic substance.

By the late eighteenth and early nineteenth centuries, people had long been aware of the toxicity of some substances commonly used in work, particularly metals like lead and mercury, and they made efforts to avoid them.³⁷ When a location for the new London Hospital was being sought in the 1740s, for example, a potential site in Whitechapel was rejected as being too near the White Lead Works and as thus potentially too injurious to the health of the patients.³⁸ But general knowledge about substances’ toxicity did not protect laborers from their effects, and for people engaged in certain occupations, exposure was difficult to avoid. Workers were often confined in small spaces with the

³⁶ This general comment about metals comes from a chapter about the diseases of miners. Ramazzini, *Diseases of Workers*, p. 15.

³⁷ Concerning knowledge about occupation-related disease going back as far as Pliny, see Sigerist, “Occupational Diseases.” On an early tract about disease related to mining, see Paracelsus, *Four Treatises of Theophrastus Von Hohenheim, Called Paracelsus*. Edited, with a Preface, by Henry E Sigerist. Translated From the Original German, with Introductory Essays, by C. Lilian Temkin, George Rosen, Gregory Zilboorg, and Henry E Sigerist (Baltimore: Johns Hopkins Press, 1941), particularly George Rosen’s introduction to his translation of Paracelsus’s “On The Miners’ Sickness and Other Miners’ Diseases,” pp. 45-55.

³⁸ E. A. Clark-Kennedy, *The London: A Study in the Voluntary Hospital System*, vol. 1, *The First Hundred Years, 1740-1840* (London: Pitman Medical Publishing Co. Ltd.), p. 114. On the known toxic effects of therapeutic mercury and the need to balance potential benefit against potential harm, Clark-Kennedy quotes from the 1720 notebook of Richard Austen, a student at St. Thomas’s, who describes using mercury in the form of an ointment rather than prescribing it internally, and anointing “every part for three nights except Breast, Belly and Back, for fear of a paralysis by offending ye nerves.” *The London*, p. 40. Dorothy George notes commentary from 1747 on the effects of the red and white lead works in Whitechapel and other places around London, “where the work was done by engines, horses, and labourers, ‘who are sure in a few years to become paralytic by the mercurial fumes in the lead.’” *London Life*, p. 203. Lead fumes were not strictly mercurial, of course, but the similar palsies resulting from the two metals’ fumes allowed them to be confounded this way.

toxic substances and their fumes, remaining with them after work was completed and sleeping in their workshops.³⁹

In the London of this time, several occupations put workers at high risk for work-related poisoning. As Ramazzini had noted, “there are almost countless kinds of minerals and each one of them inflicts its own peculiar injuries.”⁴⁰ Plumbers and potters worked with melted lead and thus with lead fumes. Refiners of silver and gold and looking-glass makers were exposed to mercury. Painters, pewterers, and gilders were exposed to lead powders and fumes. Glaziers were exposed to mercury and lead.⁴¹ Both mercury and lead were known to produce palsies consisting of weakness, paralysis, and tremors, among other symptoms. The hallmark of incipient toxicity from mercury was an excessive salivation that sometimes preceded the tremulousness and palsy, but the tremors induced by lead and mercury were not differentiated from each other.⁴² In a chapter about the diseases of gilders, Ramazzini described the problems to which goldsmiths were subject:

“We all know what terrible maladies are contracted from mercury by goldsmiths, especially by those employed in gilding silver and copper objects. This work cannot be done without the use of amalgam, and when they later drive off the mercury by fire they cannot avoid receiving the poisonous fumes into their mouths, even though they turn away their faces. Hence craftsmen of this sort very soon become subject to vertigo, asthma, and paralysis. Very few of them reach old age, and even when they do not die young their health is so terribly undermined that they pray for death. Palsy of the neck and hands, loss of teeth, uncertain gait, and scelotyrbe . . .”⁴³

³⁹ George,” *London Life*, pp. 202-3.

⁴⁰ Ramazzini, *Diseases of Workers*, p. 17.

⁴¹ George, *London Life*, p. 203-4, notes that glaziers, whose work involved melting lead, were more subject to palsies than any other workers than gilders and plumbers; mirror-making involved mercury.

⁴² For example, in the section of his nosologic work where he discusses tremors, William Cullen divides tremors into three types: asthenic, paralytic, and convulsive. Among the paralytic tremors is *tremor metallurgorum*, a term that does not differentiate among the tremors consequent to working with different metals. William Cullen, *A Methodical System of Nosology*, Translated by Eldad Lewis (Stockbridge, Massachusetts: Printed by Cornelius Sturtevant Jun., for the translator, 1808), pp. 110-111.

⁴³ The first quotation is from Ramazzini’s description of the diseases of miners, *Diseases of Workers*, pp. 17 and 19. The discussion of gilders and goldsmiths is found on p. 33. The word scelotyrbe, one that is rarely used, and one that Parkinson later used in a specific way to define the peculiar gait of the shaking palsy, is here used in a more general sense, to describe lameness or weakness.

The six poor goldsmiths residing in the Goldsmiths' Almshouses in Parkinson's neighborhood would almost certainly have been exposed to mercury in this way, for example, and they might have manifested the paralyses and uncertain gait, or scelotyrbe, that Ramazzini described.⁴⁴ Environmental as well as occupational exposure to these substances were known to undermine health, whence the rejection of the potential building site for the London Hospital near Whitechapel's White Leadworks. There was a White Lead Mill located north of Hoxton Square as well, just opposite one of the area's private madhouses; it posed the same risks.⁴⁵

Parkinson was aware of the connection between palsies and metals and described them in a popular medical compendium he wrote considerably before writing the *Essay*:

“The immoderate use of spirituous liquors, tobacco, coffee, and tea, will be likely to promote the production of this complaint [palsy]. Similar effects may also be produced by quicksilver, lead, arsenic, and other mineral substances; either by the unskillful employment of them as medicines, or by the necessary exposure to their action, in the various arts in which they are employed, such as gilding, the fusing of metals, painting, &c. Sudden and violent gusts of passion, and other considerable affections of the mind, may also induce this disease.”⁴⁶

These metals were known to induce tremors, paralysis, weakness, and changes in behavior, but these abnormalities were not described in a way that would distinguish them from the toxicities of other metals, or from symptoms induced by other causes

⁴⁴ Ramazzini notes the risks of mercury poisoning (hydrargyrosis) to chemists working with mercury and to surgeons who use their hands to anoint patients with mercurial ointments, “such as palsy of the hands, vertigo, or colic,” *Diseases of Workers*, p. 47. See also Paul D. Blanc and Brian Dolan, eds., *At Work in the World: Proceedings of the Fourth International Conference in the History of Occupational Health and Environmental Health* (San Francisco: University of California Medical Humanities Press, 2012), esp. Roberto G. Lucchini and Renato Gilioli, “Work-Related Neurobehavioral Toxicity from a Historical Perspective [extended abstract],” pp. 117-9. The authors describe Ramazzini's work on mercury poisoning as an early conceptualization of a toxicity that can affect both physical function, specifically motor function, and mood and behavior.

⁴⁵ See Figure 1; the White Lead Mills can be found at the north edge of Shoreditch, near George Whitmore's house, later Whitmore's madhouse.

⁴⁶ James Parkinson, *Medical Admonitions to Families, Respecting the Preservation of Health and the Treatment of the Sick*, 1st American editions, from the 4th English ed. (Portsmouth, New Hampshire: Printed for Charles Peirce by N.S. & W. Peirce, 1803), pp. 366-7.

altogether.

Manganese is not among the substances mentioned as harmful or toxic to the nerves, either by Parkinson or by Ramazzini, but it was a substance used at the time for clarifying glass and glazing pottery. More recently, however, it has become clear that exposure to manganese particles and fumes can produce a syndrome nearly indistinguishable from the shaking palsy that Parkinson described, including weakness and fatigue, drooling, the peculiar abnormal gait, and resting tremor. This syndrome was first noted in 1837, and manganese exposure is recognized as an occupational hazard.⁴⁷

In a summary work about chemistry that he published in 1803 called *The Chemical Pocket-Book*, Parkinson included a detailed chapter about manganese. As in the chapters about other metals, he briefly alluded to occupational uses. He did not address medicinal or toxic effects, even those of lead and mercury with which he was familiar.⁴⁸ Of manganese, he says,

“To various species of uncoloured glass it gives various hues according to the quantity of oxide, and its degree of oxidement. If a very small portion be used to glass discoloured by coaly particles or iron, it renders it colourless; it is hence called *glass-maker’s soap*. It is also employed to give a black glazing to pottery-ware.”⁴⁹

⁴⁷ The first description of work-related manganese toxicity was John Couper, “On the Effects of Black Oxide of Manganese When Inhaled into the Lungs,” *British Annals of Medicine, Pharmacy, Vital Statistics and General Science* 1837; 1: 41-2. See also H. W. Gillen, “Occupational Neurotoxicity and Movement Disorders: A Historical Perspective,” *Journal of the History of the Neurosciences* 1995; 4: 63-6; Christopher G. Goetz, *Neurotoxins in Clinical Practice* (Jamaica, New York: Spectrum Publications, 1985); Annette B Santamaria, Colleen A. Cushing, James M. Antonini, Brent L. Finley, and Fionna S. Mowat, “State-of-the-Science Review: Does Manganese Exposure During Welding Pose a Neurological Risk?” *Journal of Toxicology and Environmental Health, Part B: Critical Reviews*, 2007;10; 6: 417-465; Ismael Mena, Oscar Marin, et al., “Chronic Manganese Poisoning: Clinical Picture and Manganese Turnover,” *Neurology* 1967 (February): 128-36; and Joung-Wook Lee, “Manganese Intoxication,” *Archives of Neurology* 2000; 57: 597-9.

⁴⁸ James Parkinson, *The Chemical Pocket-Book: or Memoranda Chemica: Arranged in a Compendium of Chemistry* (London: C. Whittingham for H. D. Symonds, 1803). See the sections on sections on lead, pp. 116-9; mercury (listed here as quicksilver), pp. 93-100; and manganese, pp. 137-9. He was aware of the toxic effects of medicinal mercury and did later differentiate those effects from the manifestations of the shaking palsy.

⁴⁹ Parkinson, *Chemical Pocket-Book*, p. 139.

It is not clear how many of the chemical procedures detailed in the *Chemical Handbook* Parkinson actually performed himself, but his descriptions of the substances and their transformations are vivid, particularly about color. Many of the procedures involving lead, mercury, and manganese involve heating and combining with other substances; anyone performing them would have been exposed to their fumes.

The question is whether any Londoners' occupations at this time would have exposed them to manganese fumes, and whether they, in turn, would have been in a place where Parkinson could observe them. It is possible, and even likely, that potters and glaziers would have had exposure to manganese. If they exhibited the signs of the substance's toxicity, they would probably have had something that looked very much like, or indeed was, the shaking palsy.

The Workhouse

For many of the inhabitants of Shoreditch, there was a narrow margin between barely subsisting on income from work and, at times of crisis or illness, being thrown on the Poor Law and the parish.⁵⁰ Parkinson's practice had attuned him to the problems and disabling conditions of the poor, and he often described their suffering in his medical writings. It was his familiarity with their diseases that led him to counter the prevailing ideas about gout, not only about how best to treat it, but about who was subject to the condition in the first place. Describing the disability attendant on longstanding cases of gout, Parkinson, who had gout himself, did not envision the disease as patrician:

“After some time most of the joints, and with the rest, those of the spine, partake

⁵⁰ For a basic introduction to the workings in London of the Poor Law and the varieties of parish relief at this time, see Tim Hitchcock, “London Lives,” <http://www.londonlives.org/static/PoorLawOverview.jsp>.

of the prevailing disposition to rigidity; so that at last the flexibility for performing the most simple offices in life is lost . . . The persons who appear to be most liable to this complaint, are those to whom its injurious effects must prove most particularly afflictive. The laboring poor, whose hands are their only means of support, appear to be the most frequent sufferers by this malady. A slight and transient injury to the hand, is, indeed, a serious injury to the poor; but a disease which thus entirely destroys its powers, renders the situation of its victims truly deplorable.”⁵¹

The connection between the progressive disability resulting from chronic disease and worsening impoverishment that led to a need for charity was clear to him:

“They toil on, depressed by observing the daily diminution of their ability for labourious exertion, and are at last mournfully obliged to submit to received from charity, that support, which their hands can no longer procure them. The examination of the inmates of those houses which receive the parochial poor, will generally shew sufficient proofs of the prevalence of this malady [gout]. Many will be found driven thither who still possess a considerable portion of constitutional strength, but who, thus maimed, are entirely deprived of that blessing to an independent spirit, the power of supporting themselves by their own exertions.”⁵²

Parkinson writes here with authority that bespeaks his familiarity with the precariousness of manual workers’ situations and the spectrum of problems of the hands, feet, and spine that landed them in the workhouse.

In July 1813, Parkinson and his son, John W. K. Parkinson, were selected by the Board of Trustees of the Parish of St. Leonard’s to assume the duties of “Surgeon,

⁵¹ James Parkinson, *Observations on the Nature and Cure of Gout; On Nodes of the Joints and On the Influence of Certain Articles of Diet in Gout, Rheumatism, and Gravel* (London: H. D. Symonds, Paternoster Row, 1805), p. 72. See Roy Porter and G. S. Rousseau, *Gout: The Patrician Malady* (New Haven and London: Yale University Press, 1998), p. 139: “Against most medical opinion of the time [Parkinson] believed that ‘nodosity of the joints’ could be found among the poor no less than among the wealthy sufferers.” On gout’s accepted reputation as a patrician disease, David Turner, writing about disability in the eighteenth century, notes, “Gout’s reputation as an illness viewed as pertaining to the Georgian gentleman has been well documented by Porter and Rousseau in *Gout: The Patrician Malady* (1998). Not only was gout believed to be caused by the intemperate lifestyle of the eighteenth-century elite, it was an illness that became an intrinsic part of their class identity. As Philip Dormer Stanhope, fourth earl of Chesterfield, famously observed in a letter to his son in November 1765, gout was ‘the distemper of a gentleman’ whereas its near relation rheumatism ‘is the distemper of a hackney-coachman or chairman, who are obliged to be out in all weathers and at all hours.’” Turner, *Disability*, p. 113. Porter and Rousseau quote Stanhope to this effect twice, on pp. 50 and 72.

⁵² James Parkinson, *Gout*, pp. 72-3.

Apothecary, and Man-Midwife to the Poor of the Parish,” which entailed making visits to severely ill paupers at home, attending them in an outpatient dispensary, and caring for the inmates of the parish workhouse.⁵³ St. Leonard’s had built a large new parish workhouse in 1777 on Shoreditch’s Kingsland Road, and land was subsequently purchased for a burial ground behind the workhouse.⁵⁴ The workhouse had special infirmary wards for the sick and rooms designated for the insane and idiots.⁵⁵

Aspects of London’s poverty, the strategies for survival of the poor, the varieties of indoor and outdoor relief, and the workings of the Poor Law have been the focus of considerable scholarship in the past two decades.⁵⁶ But it is only recently that the workhouse has been studied as an important locus of medical care.⁵⁷ While workhouses

⁵³ Shirley Roberts, *James Parkinson (1755-1824)* (London: Royal Society of Medicine Press, 1977), pp. 94-5. For a summary of Parkinson’s extensive work for the parish of St. Leonard’s, see Morris, *James Parkinson*, “The Parish Doctor,” pp. 77-87, in which Morris chronicles Parkinson’s medical work and his establishment of fever wards in the workhouse, among the first such wards in London, his earlier work as a parish trustee, and his efforts to prevent mistreatment of the parish’s apprentices by investigating the conditions under which they worked. After one year as the parish’s surgeon-apothecary, Parkinson petitioned for, and was granted, an increase in salary based on the amount of work that the position entailed. It must have been considerable. Much later, John W. K. Parkinson referred to making seventy visits a day to parishioners.

⁵⁴ Ellis, *History and Antiquities*, pp. 113 and 117.

⁵⁵ Elaine Murphy, “Mad Farming in the Metropolis. Part 2: The Administration of the Old Poor Law of Insanity in the City and East London, 1800-1834,” *History of Psychiatry* 2001; 12: 405-30, p. 419.

⁵⁶ Aside from George, *London Life*; Ottaway, *The Decline of Life*; and Hitchcock and Shoemaker, “London Lives,” www.londonlives.org, see Tim Hitchcock, *Down and Out in Eighteenth-Century London* (London and New York: Hambledon, 2004); Steven King, “Stop This Overwhelming Torment of Destiny”: Negotiating Financial Aid at Times of Sickness under the English Old Poor Law, 1800-1840,” *Bulletin of the History of Medicine* 2005; 9(2): 228-260; and David R. Green, *Pauper Capital: London and the Poor Law, 1790-1870* (Farnham, Surrey: Ashgate, 2010). About these issues in Bristol, see Fissell, *Patients, Power, and The Poor* and “The ‘Sick and Drooping Poor’ in Eighteenth-Century Bristol and its Region,” *Social History of Medicine* 1989; 2(1): 35-58. In the struggles of the poor to navigate the provisions of the Poor Law, a major factor was its complexity and the variation of its administration from parish to parish. See Hitchcock and Shoemaker, “London Lives.” As they note, “From the perspective of the poor themselves, the most enduring and characteristic aspect of poor relief in the capital was its sheer complexity. Between the parishes, with their varieties of relief -- doles and workhouses-- and the Associational Charities; and between casual relief, hospitals and infirmaries, work and educational schemes, clothing charities, and a dense calendar of events, each with its doles and alms, the poor were faced with perhaps the most densely patterned set of resources available to any group in Europe or beyond.”

⁵⁷ See Jonathan Reinartz and Leonard Schwarz, eds. *Medicine and the Workhouse*. (Woodbridge: Boydell & Brewer, 2013), especially Kevin Siena, “Contagion, Exclusion, and the Unique Medical World of the Eighteenth-Century Workhouse: London Infirmaries in their Widest Relief,” pp. 19-39. Siena notes, “Workhouses need to be integrated into the history of eighteenth-century institutional medicine which, for

were initially established to house people who were able to work, they rapidly devolved into habitations for those too ill, disabled, or old to work.⁵⁸ Kevin Siena and others have pointed out the degree to which the workhouses were built for one purpose but ended up serving another. At a time when there were few public institutions, eighteenth-century workhouses transformed as needs arose to assume the functions of hospices, prisons, hospitals, and homes for the aged.⁵⁹ The need of London's sick poor for their beds caused them to burgeon over the course of the century into large, sometimes huge, institutions.

As Mary Fissell has shown about Bristol, the poor often availed themselves of the provisions of the Poor Law, and particularly of indoor relief in settings like workhouses, only under duress and at times of crisis, often at times of acute sickness or injury.⁶⁰ When the acute need abated, they no longer needed charity or welfare and returned to their ordinary, often precarious, lives. The picture that emerges from Fissell's and other subsequent work is of a more mobile set of relationships to charity and institutions for the

the most part, has remained a history of hospitals," p. 19. John Green Crosse, as an apprentice, mentioned in his diary that he "rode with Mr Bayly [his master] when he went out to see sick patients in their homes, or to visit the 'poorhouse' where a certain amount of surgery was practiced." V. Mary Crosse, *A Surgeon in the Early Nineteenth Century: The Life and Times of John Green Crosse* (Edinburgh and London: E. & S. Livingstone Ltd., 1968), p. 16.

⁵⁸ Kevin Siena cites earlier work by Tim Hitchcock and others clearly indicating that "the original plans for workhouses revolved around the issues of work, profit, and moral reform, not health care. Yet the provision of care for the sick and infirm quickly became a crucial function of most London workhouses. Once in place, these institutions originally erected for very different purposes evolved into important local medical institutions. This evolution of workhouses was a product of the gap between the design of the reformers and the actual needs of the poor. In simple terms, reformers sought to fill workhouses with able-bodied paupers who needed work, but parish officers throughout London quickly found themselves overwhelmed by the throngs of poor, sick people who sought relief, and who, by virtue of their settlement, were entitled to it." Kevin Siena, *Venereal Disease, Hospitals, and the Urban Poor: London's "Foul" Wards, 1600-1800* (Rochester: University of Rochester Press, 2004), p. 138. The extent of illness and disability among eighteenth-century inmates of workhouses has often been underestimated by people writing institutional histories; see E.A. Clark-Kennedy, *The London*, p. 5, for an example of the old view of workhouses as housing the able-bodied: "[T]he workhouse system was for the able-bodied and not until 1834 can sick wards be said to have been started in the workhouses; not until 1865 did the creation of the Metropolitan Asylums Board inaugurate the policy of separate institutions capable of providing treatment."

⁵⁹ See Reinartz and Schwarz, eds., *Medicine and the Workhouse* (Woodbridge: Boydell & Brewer, 2013), "Introduction," p. 4.

⁶⁰ See Fissell, *Patients, Power, and The Poor* and "The 'Sick and Drooping Poor.' Analogously to inpatient and outpatient care, indoor relief was that provided in special institutions, and outdoor relief was that provided to people who remained in their homes.

sick and poor than had been envisioned before, with many of the poor going from site to site of care, in some ways changing status with each move: sometimes living independently or with the benefits of outdoor relief, and at others requiring indoor relief and institutional medical care; at times in the workhouse, at others in the hospital. This was especially the case for those suffering from chronic illnesses that might remit and recur.⁶¹

Siena's work on charity, contagion, and exclusion in the workhouse helps limn a kind of parallel stratum of care to that of the hospitals and private practitioners, one that seems to have dealt with the desperately poor, the chronically ill, and those suffering from conditions that precluded their admission to the charitable hospitals.⁶² This system, often located in the workhouse and outpatient dispensaries, staffed by apothecaries and surgeon-apothecaries rather than by physicians, and caring for people with "foul" and chronic rather than acute problems, has been far less visible to historians than the environment of hospitals and the professionalizing and training of physicians.⁶³

⁶¹ Thanks to Kevin Siena for discussing with me the spectrum of medical conditions that brought people to the workhouse, and the kinds of transitions those with recurring and remitting diseases such as venereal disease might make among the existing sites of care in London. In his work on venereal disease in London, Siena notes that "the medical role of the eighteenth-century workhouses has received little attention . . . in parochial workhouse infirmaries there existed an important level of institutional health care for the very poor . . . Overall, the assumption continues that the medicalization of workhouses was a nineteenth-century phenomenon and a product of the New Poor Law [of 1834] . . . I suggest that workhouse infirmaries became the primary medical institutions for the very poor in London from early in the eighteenth century, long before the well-known reforms of 1834. Situated in parishes through out the city, they collectively represented an important level of institutional health care. Though smaller and less renowned than institutions like Bart's or St. Thomas's, they played a crucial role in the overall network of London medical charity." Siena, *Venereal Disease*, p. 136.

⁶² It was not just the itch and the idea of contagion, particularly from venereal disease or fever, that excluded people from hospital care. As Irvine Loudon and A. E. Clark-Kennedy noted, some hospitals attempted to exclude those with leg ulcers, whose inpatient stay was likely to be protracted.

⁶³ According to Reinartz and Schwarz, "Surprisingly, workhouse doctors have remained almost as unfamiliar to eighteenth-century historians as the patients treated in workhouses and their infirmaries. Unlike the successful medical careers charted in anniversary histories of voluntary hospitals, the names, let alone the careers, of workhouse doctors are often less documented in the medical history literature. In eighteenth-century London these medical practitioners seem to have sprung primarily from the ranks of apothecaries . . . " Jonathan Reinartz and Leonard Schwarz, "Introduction," in Reinartz and Schwarz, eds.,

In retrospect, workhouse medicine may also be less visible as a coherent system of care than it in fact was because it is so difficult to see its boundaries. From a distance, workhouse care can appear to dissolve into the ordinary Poor Law custodial parish care of the disabled poor, consisting as much of shelter and food as of medicines and the treatment of illness and injury. The patients and their histories too are difficult to track: the chronically ill went from hospital to outdoor relief to indoor relief in the workhouse and back, moving among different levels and sites of care. The acutely ill patients admitted to the hospital were often the same people who, when their acuity lessened and the mere facts of poverty and disability remained, reverted to the workhouse, or, if they were a bit more robust or had some family support, to outdoor relief or independence.

For someone exploring the issue of the shaking palsy, the workhouse, with its shifting population of chronically ill residents, would have offered a varied and concentrated amount of physical disability and abnormal mobility to observe: it was filled with people, mostly women, who were unable to work, whether from illness, being maimed, or simply being old and frail.⁶⁴ The workhouse was also the place where sick paupers who had been excluded from other medical care, including at the voluntary hospitals, sought care. Voluntary hospitals' policies of excluding patients suffering from fevers or from the "foul" or venereal disease, who raised the specter of contagion, meant that the London's workhouses had an exceedingly high prevalence of inmates suffering

Medicine and the Workhouse, p. 7.

⁶⁴ This population distribution is mentioned consistently in studies of the workhouse, e.g., by Siena, Hitchcock, Reinartz and Schwarz. According to Siena, "Gendered realities of early modern poverty guaranteed that the poorest segment of the population was disproportionately female. Thus the workhouse infirmary, the institution catering to London's poorest, was largely a female institution, setting it off in crucial ways from the other [Royal] hospitals." In his work on the St. Margaret's Workhouse Infirmary, Siena states that "Three out of four workhouse infirmary patient were women, four out of five suffered from a contagious or scandalous ailment [fever, the pox, or the itch], and . . . all of them were poor." Siena, "Contagion," p. 24.

from fever or from venereal, or “foul,” disease.

The high prevalence of venereal disease among London’s poor in the seventeenth, eighteenth, and early nineteenth centuries and the amount of suffering and morbidity attributable to it are only now becoming clear. Venereal disease was painful, disabling, and a crippler; it was also often lethal.⁶⁵ Both the disease and its treatment, usually mercury given to the point of inducing salivation, could cause mobility problems; both could wreak havoc with the nervous system, inducing tremors, paralysis, numbness, and sometimes madness.

St. Leonard’s workhouse was large, housing up to 500 people. A practitioner working there would have seen not only high numbers of disabled, sick older people, the population among whom the shaking palsy would most likely to appear, but also of poxed people, lamed by the disease and tremulous from the mercury used to treat it.⁶⁶ Observing some of their disordered movements would have been routine during medical attendance on them.

The fact of Parkinson’s training as a surgeon-apothecary rather than as a physician, and his subsequent work among the poor in the stratum of care that included the workhouse and other Poor Law institutions, exposed him to a population of patients very different from those he would have cared for in more prosperous parts of London. Similarly, his remaining to practice among the poor of Shoreditch exposed him to a population of neighbors that he would not have encountered elsewhere. The result was

⁶⁵ In the parish of St. Martin’s in the Field, for example, between 1775 and 1794, the workhouse contributed 84 percent of all foul disease burials recorded in the parish. See Jeremy Boulton, Romola Davenport, and Leonard Schwarz, ““These Antechambers of the Grave”? Mortality, Medicine, and the Workhouse in Georgian London, 1725-1824,” in Reinartz and Schwarz, eds. *Medicine and the Workhouse*, pp. 58-85.

⁶⁶ Roberts, *James Parkinson*, p. 95.

that he worked in institutions, and lived in a neighborhood, with an extraordinarily high prevalence of old and chronically ill people, many of whom would have exhibited movement disorders, and he would have been there to observe them.

Lunacy and the Hoxton Madhouses

Even during Parkinson's childhood, and increasingly during his adult years, when large madhouses, either public or private, were still a rarity in England, Hoxton was known for its large private madhouses.⁶⁷ In his account of Shoreditch's institutions, the "Parishioner" describes one of them:

"On the East side of Hoxton four houses at the least are, by Mr. Harrison, used as receptacles for maniacs. I have heard a domestic of his say, he believed his master had as many of truly pitiable beings in his care as are in Bethlehem hospital."⁶⁸

By the late eighteenth century, insanity, or lunacy, had gradually become conceptually differentiated from other forms of social deviance and was increasingly seen as a malady.⁶⁹ Though it was viewed as emanating, in a localized way, from the brain and nerves, madness was also still understood constitutionally, as a condition both of mind and body. Madness manifested not simply as bizarre thinking but also as a way of being and behaving, a clearly recognizable way of acting odd that could still be identified

⁶⁷ In *The Hoxton Madhouses*, A. D. Morris describes the easy laughs evoked by the name Hoxton, or "Hogsdon:" "The name Hoxton was once synonymous with lunacy. Satirical writers of the seventeenth century scoffed at Hoxton, and the clowns at Bartholomew Fair could always raise a laugh at the mention of Hoxton." Morris, Parkinson's biographer, served as Medical Superintendent of St. Leonard's Hospital, Hoxton, which began as the parish workhouse infirmary that Parkinson attended as parish physician. A. D. Morris, *The Hoxton Madhouses* (March, Cambridgeshire: Goodwin Brothers, 1958), p. 1.

⁶⁸ Parishioner, "A Short Description," p. 958. Bethlehem [or Bethlem, or Bedlam] Hospital, dating from the thirteenth century, was the first public lunatic hospital established in London.

⁶⁹ On the social reasons for the disaggregation of madness from other types of deviant behavior, see Andrew T. Scull, *The Most Solitary of Afflictions: Madness and Society in Britain 1700-1900* (New Haven and London: Yale University Press, 1993), pp. 34-42, and, on the changing cultural meanings of madness, pp. 79-96.

without diagnostic expertise, though the need for special diagnostic expertise was to be increasingly contested as the profession of psychiatry developed as the nineteenth century progressed.⁷⁰ At some points the oddness was extreme enough to be treated as a spectacle or performance.⁷¹ The lunatics confined at Bethlem (Bedlam) were long regarded as public entertainment, and the public visited them to watch their behavior.⁷²

In contemporary accounts of madness, whether by medical practitioners or by other observers, references to the gesticulations of lunatics are frequent. But though the thoughts of the mad are often described in detail, the peculiar movements are rarely specified. Instead, they seem to be mentioned in passing, functioning as signs or markers: corroboration of the presence of madness, but not as phenomena interesting in themselves. For someone wondering what, exactly, these gesticulations looked like, the accounts hold them tantalizingly out of reach. The twitches and spasms themselves remain frustratingly generic, more emblem than independent entity.

⁷⁰ In the context of the historiography of madness, and in particular, the nineteenth-century development of the psychiatric profession and clinical expertise in the diagnosis and treatment of madness, Porter notes that this earlier common ability to “know” madness is important: “This public transparency of madmen and fools is worth emphasizing, for it was a situation later to become contested. For one tenet of the professional psychiatry developing in the nineteenth century was the conviction that insanity would be fearsomely latent, biding its time, and visible only to the expert diagnostic gaze of the alienist.” *Mind-Forg’d Manacles: A History of Madness in England from the Restoration to the Regency* (London: Athlone Press, 1987), p. 35.

⁷¹ Roy Porter discussed this recognizable quality of madness and its characteristic behaviors and gestures in *Mind-Forg’d Manacles*, p. 35: “Madness advertised itself in a proliferation of symptoms, in gait, in physiognomy, in weird demeanor and habits. It was synonymous with behaving crazy, looking crazy, talking crazy. Villagers, churchwardens, and doctors alike—all could spot ‘antic dispositions.’” Porter is alluding to an early modern world of readable signs, in which the inner or hidden was encoded in the external. The mad, Porter notes, “looked quite peculiar. They went near-naked, tore their clothes or dressed fantastical, their hair festooned with straw. They acted oddly: now motionless, withdrawn, now praeternaturally violent . . . They moved and gesticulated incessantly, apparently never sleeping, racked by tics and convulsions,” pp. 35-8.

⁷² Jonathan Andrews and Andrew T. Scull, *Customers and Patrons of the Mad-Trade: The Management of Lunacy In Eighteenth-Century London: With the Complete Text of John Monro's 1766 Case Book* (Berkeley: University of California Press, 2002), p. 7.

A quick example is the role of movement in a case found in the 1766 casebook in which John Monro (1715-91), who was Physician to Bethlem Hospital for much of his career, describes his encounters with his private patients:

“Capt. Macdonald. Has been for some months in a low dispirited way, but when I came to him, he would not answer any question I ask’d him he was sitting in his bed sometimes singing, & sometimes imitating dancing, & making a strange kind of noise & in constant agitation bowing his head towards his feet, & had every absurd ridiculous appearance of a mad man.”⁷³

Monro does not elaborate on the odd movements except to remark on their being consistent in their ridiculousness with the “appearance of a mad man.” Madness, in this case, and in a somewhat tautological way, looks and moves like madness.

Though Monro may have differentiated in some way among the twitchings and tremors of the mad, associating some with alcohol, for example, and others with fever, he may not have thought much about movement at all. This somewhat generic way of referring to the movements, rather than characterizing them, is not peculiar to Monro. It is so consistent in the literature on madness at this time that this generic quality, rather than a distinction among types of movements, may in fact be the lesson. These weird movements were noticed and even expected, but they were not analyzed in the same way as the content of the lunatics’ thoughts. They served as an outward indicator of the more pertinent phenomena: the thoughts and constitutions of the mad.

⁷³ This casebook appears in its entirety, extensively annotated by Andrews and Scull, in *Customers and Patrons of the Mad-Trade*, their second book about Monro and his work. Monro’s notes about each case are succinct and mostly descriptive, but not analytic; they make no argument but focus on the patients’ demeanor and behavior, thereby demonstrating his conclusions better than his thinking. In the 124 brief pages of the casebook, comprising 100 cases, disordered movements are specified in the cases of only four patients. One, who had given birth ten days before Monro saw her, died within days (pp. c110-c113). Monro attributes the twitchings of another patient to alcohol (pp. c118-c119). A third has a tottering gait (pp. c56-58). Captain Macdonald’s case, Case 58, is the fourth, found on p. c72. Monro later records a follow-up visit to Captain Macdonald as case 60, but does not describe his movement at all.

During Parkinson's life, only a small percentage of the people deemed mad were confined, whether in a prison, a hospital, a public or private madhouse, or a bridewell; carceral spaces were mostly reserved for those known to be violent. Most of the mad were cared for at home, or in a private home belonging to someone reputedly skilled in the care of the mad, or perhaps in a small private madhouse.⁷⁴ But Hoxton featured three very large private madhouses within the space of a few hundred yards: Whitmore House, owned and managed by Thomas Warburton; Holly House, managed by Mrs. Esther Burrows and her son George William Burrows; and Hoxton House, owned and managed by Sir Jonathan Miles. A few blocks away, in Bethnal Green, were the White and Red Houses, previously known as Talbots' and Rhodes', two huge madhouses also owned by Thomas Warburton. A. D. Morris notes that in the late eighteenth and early nineteenth centuries, nearly all of London's private lunatics were accommodated in these five madhouses. In 1819, of a total of 1551 certified lunatics in London's private madhouses, 1341 were housed there.⁷⁵ In 1816, Hoxton House and the two Bethnal Green madhouses

⁷⁴ Most private madhouses cared for fewer than ten patients, and many for only one or two. See Elaine Murphy, "The Mad-house Keepers of East London," *History Today*, September 2001, pp. 29-35, p. 31: "In 1816, a quarter of these [private London] madhouses were registered for fewer than ten patients and the majority for less than fifty."

⁷⁵ It was only after the Act of 1774 for Regulating Madhouses, which established the requirement of registering institutionalized lunatics, that it was possible to count the certified non-pauper insane in private madhouses. The 1774 Act stipulated that private madhouses must be licensed each year, with licenses specifying the number of confined patients. The three Hoxton establishments had 544 inmates: Whitmore House had 78 patients, Holly House 118, and Hoxton House 348. The Red House and White House, Thomas Warburton's Bethnal Green madhouses, housed 797 inmates. Morris, *Hoxton Madhouses*, p. 2. Pauper lunatics were excluded from these figures since they were, at this time, not subject to certification or registration with the Commissioners in Lunacy. Hoxton House and Holly House had beds for pauper lunatics, whose care was paid for by the parish, and who were not counted in these tallies; thus these madhouses were likely even larger than the figures suggest. For a discussion of the sequence of laws regarding madness and madhouses in England, see William Llywelyn Parry-Jones, *The Trade in Lunacy: A Study of Private Madhouses in England in the Eighteenth and Nineteenth Centuries* (London: Routledge & Kegan Paul, 1972), "The Madhouse System the Range and Development of Its Provisions," pp. 29-73, and Appendix A, pp. 293-303. See also Morris, *James Parkinson*, p. 96.

were all substantially bigger than London's better-known public madhouses, Bethlem and St Luke's.⁷⁶

For about thirty years, Parkinson served as the medical attendant at Holly House.⁷⁷ Also known as Burrows's (or Burroughs's) House after the family that took it over in the eighteenth century, it was the smallest of the Hoxton madhouses, run by John Burrows until his death, at which time his widow Esther, and later his son George William Burrows, took over.⁷⁸ Holly House was located between the parish workhouse and Parkinson's house in Hoxton, so he would have walked by it frequently.⁷⁹

While a considerable amount is known about the other two large private Hoxton madhouses, much of it scandalous, far less is known about Holly House. This is in part because private madhouses tended not to keep records, but the invisibility of Holly House indirectly reflects the relatively high quality of care that was provided there, compared to that of the other local private madhouses.⁸⁰ Much of what is known about Whitmore House and Hoxton House comes from the published reports of the Select Committees of the House of Commons, in which both were investigated, with their owners and medical attendants called to testify. The published testimony about these institutions speaks to the

⁷⁶ Elaine Murphy, "Mad-house Keepers," p. 31.

⁷⁷ See Morris, *Hoxton Madhouses*, p. 1. About Parkinson's work as a surgeon-apothecary to madhouses, see also Murphy Elaine, "Mad Farming. Part 2", pp. 418-22; Morris, *James Parkinson*, "The Madhouse Doctor, pp. 96-113; and Roberts, *James Parkinson*, pp. 81-6.

⁷⁸ George Burrows, the son of John and Esther Burrows, is not the same person as the better-known George Man Burrows (1771-1846), who was later famous for his work organizing and leading the Society of Apothecaries and as a specialist treating the insane.

⁷⁹ Elaine Murphy, "Mad Farming in the Metropolis. Part 1: A Significant Service Industry in East London," *History of Psychiatry* 2001; 12: 245-82, p. 262.

⁸⁰ See Morris, *Hoxton Madhouses*, p. 28: "[I]t would appear that [Holly House] was the best of the Hoxton madhouses, the one in which the patients were most humanely treated. It is significant that less is known about this house in contrast with Whitmore House and Hoxton House, for the simple reason that neither Mrs. Burrows, nor her son, nor James Parkinson, the visiting surgeon, were [sic] summoned to give evidence before any of the Select Committees of the House of Commons which sat to enquire into the Acts for the regulation of private madhouses, and it is noticeable that the Select Committee always referred to Burrows' House for favorable comparison."

horrors of these places. But Holly House, its owner Mrs. Burrows, and Parkinson were exempted from these inquiries, and Holly House, though later criticized for being overcrowded, escaped the censure directed at the other two.⁸¹

In recent decades, historians of lunacy have examined the plight and care of the mad in eighteenth- and nineteenth-century England—and the gradual trends toward sequestering lunatics and paupers, and toward demanding specialized care for the mad: the evolution of psychiatry as a medical specialty, and the increasingly important role of the expert in the diagnosis and treatment of the insane. These changes were already underway, though in a less organized and bureaucratized way, during the eighteenth century as well, but the scale of sequestering of both lunatics and paupers remained small.⁸²

Madhouse care, with its requirement for careful attendance and its forced confinement and sometimes physical restraints, was reserved for people whose madness was deemed dangerous. Most of the mad, who remained unconfined and cared for by their families, were visible on the streets, sometimes exhibiting their bizarre, but seemingly harmless, gestures and behavior. Among the mad who did not have families, or whose families could not care for them at home, there was another category of people: the mad who were too harmless to be confined in expensive or specialized madhouses but

⁸¹ Perhaps as corroboration, when the parish of St. Leonard's had to place its violent lunatics in a madhouse, Holly House was more expensive than Whitmore House or Hoxton House: 11 shillings a week compared to 7 or 8. See Morris, *Hoxton Madhouses*, citing the St. Leonard's parish records, June, 1815, and noting the vestry's concern about the expense.

⁸² The scholarship and historiography concerning the trends in confinement of the insane in late eighteenth and early nineteenth-century England are now substantial. See (aside from the work of Roy Porter), Andrew Scull, *The Most Solitary of Afflictions*; Parry-Jones, *The Trade in Lunacy*; Andrews and Scull, *Customers and Patrons of the Mad Trade*; Leonard Smith, *Lunatic Hospitals in Georgian England, 1750-1830* (New York: Routledge, 2007); and Elaine Murphy, "The New Poor Law Guardians and the Administration of Insanity in East London, 1834-1844," *Bulletin of the History of Medicine* 2003; 77: 45-74.

too impaired to function independently in society. These people, who could not work and support themselves, feed and clothe themselves, or maintain an abode of their own, included many of the mentally disordered paupers, called pauper lunatics or pauper idiots at the time, who ended up in almshouses and parish workhouses, and responsibility for whose care lay with the local administrators of the Poor Law.

Mad Farms and Pauper Farms

Much of the historical scholarship examining madness in the eighteenth and nineteenth centuries has focused on public and private asylums or on the increasing specialization of the care of the insane. But Elaine Murphy and others have argued that this emphasis is disproportionate, and that the major force in the care of the insane in this period was rather the parish system that dealt with pauper lunatics under the provisions of the Poor Law.⁸³ Discussing the rules governing the care of mentally disordered people, Murphy calls the Poor Law the “administrative rock upon which the system of care was created.”⁸⁴

By the end of the eighteenth century, the more dangerous pauper lunatics came to be boarded out, at the expense of the parish, to private madhouses, thereby fostering the establishment and growth of private madhouses, many of which came to house mostly

⁸³ See Murphy, “Mad-house Keepers,” p. 30: “Various Acts of Parliament from 1714 established rules governing the disposal and care of mentally disordered people. The rules were refined throughout the eighteenth and nineteenth centuries and the pattern of institutional provision changed. Nevertheless the responsible public authority for all impotent, dependent groups of people remained throughout the local Poor Law authority, initially the parish vestry Trustees of the Poor, then, after the Poor Law Amendment of 1834, the Boards of Guardians.”

⁸⁴ Explicitly addressing what she sees as a historiographic overemphasis on asylum care, Murphy says, “[A]s John Walton first pointed out in 1984, until recently two other themes [than the Poor Law] dominated the historiography of mental disorder: first, that of clinical psychiatry and psychiatrists; and second, the rise of the Victorian asylum as society’s preferred response. Over the past fifteen years, largely through the work of Pater Bartlett, David Wright, Len D. Smith, and Bill Forsythe and Joseph Melling, the asylum and “mad-doctors” have been repositioned in the periphery of a target that places the administration of the Poor Law at its center.” Murphy, “The New Poor Law,” pp. 46-7.

paupers.⁸⁵ The large madhouses of Hoxton and neighboring Bethnal Green housed many paupers, whose stays were paid for by their parishes.⁸⁶ But madhouse stays were too expensive to the parish to be a long-term solution for the non-violent mad. Such madhouse stays were typically kept brief, with the disordered person returning to his or her previous locus of care, whether home or the workhouse, after discharge.

Like the medical care system that developed within the administration of the Poor Law, situated in the workhouse infirmaries and dispensaries, and functioning as a parallel stratum to the royal and voluntary hospitals and private practitioners, there developed a parallel stratum, also within the purview of the Poor Law, caring for parish lunatics who were not violent enough to require madhouse stays, but who were too difficult for the workhouse to manage. This parallel stratum included the system of pauper-farming, or mad-farming: essentially the long-term placement in large institutions of those who were relatively able-bodied but unable to work or care for themselves, whether because of mild insanity, weak intellect, impaired mental function, or simply the chronic inability to get along with people.⁸⁷ This broad category would have included people with a range of disordered movements: epileptic seizures, tremors from alcohol and withdrawal from alcohol, the slapping gait of people with advanced syphilis, and the tremors of mercury toxicity among others.

⁸⁵ “By the close of the eighteenth century, workhouses and houses of correction had come to contain a variety of lunatics and idiots alongside the other inmates. This state of affairs, in turn, led to an increasing dependence on the system of contracting-out by parishes to private madhouses for the care of the more acutely disturbed or refractory patients. Although many parishes were reluctant to incur the expenses involved in such a system, this practice promoted the multiplication of madhouses, which in many instances, catered largely for paupers.” Parry-Jones, *The Trade in Lunacy*, pp. 13-14.

⁸⁶ According to Parry-Jones, in 1815, “there were 486 patients at Miles’ house (Hoxton House), three-quarters of them being paupers; at Talbot’s house [the White House], Bethnal Green, there were 360 patients, including about 230 paupers and at Rhodes’ house [the Red House], Bethnal Green, the 275 patients included about 215 pauper lunatics.” Parry-Jones, *The Trade in Lunacy*, p. 43.

⁸⁷ Murphy, “Mad Farming, Part 1,” p. 246.

London's pauper farms actually had no connection to agriculture and were large institutions that could provide care more cheaply than madhouses. They were mostly located at the edges of the city, in sections like Bethnal Green, Islington, and Hoxton that were the sites of other domiciles for the impoverished sick and mad.⁸⁸ They have received less attention than workhouses and madhouses, but, as Murphy has shown, they were an important part of the Poor Law's parish welfare system in the late eighteenth and early nineteenth centuries.⁸⁹

Much of the information that is available about the pauper farms, like that about the private madhouses, comes from testimony to Parliamentary committees. Information about one large pauper farm in Hoxton, run by James Robertson of "125 Hoxton," came from Robertson's testimony to the 1815/1816 Select Committee on Mendicity in the Metropolis. Robertson, whose farm was a hundred yards from Hoxton House and near the back entrance to the parish workhouse (where he had previously been workhouse master), housed 300 paupers from 40 parishes in his Hoxton house, at a cost of 6s. per week. Another pauper farm in Hoxton, run by Thomas Tipple at 12 Queen Street, housed 230 people in the summer, and up to 300 in the winter. One of the Committee's concerns was that the pauper-farm inhabitants might be begging on the street, where they would also be visible to passers-by. Although it was technically forbidden by house rules, Tipple admitted to one Select Committee that many of his inmates wandered out of the

⁸⁸ Murphy describes Hoxton as one of the areas that functioned as "receptacles for the diverse classes of incompetent poor." Murphy, "Mad Farming, Part 1," pp. 264-5. The information about pauper farming here all comes from Elaine Murphy's published articles on the subject.

⁸⁹ Murphy, "Mad-Farming, Part 1," p. 264. Murphy notes that "[i]t is not clear how pauper farms came to be called farms since most of them were just large institutional buildings with no agricultural activities at all." She speculates that "farming," in this case, indicates sub-contracting. On this parallel stratum of domiciliary institutions, see also Murphy, "Mad-house Keepers," pp. 29-35; and "Mad Farming, Part 2."

house in the daytime.⁹⁰ The paupers under Tipple's care were free to roam around in Hoxton.

The concentration of so many mad and mentally disordered people in such a small geographic area as Hoxton, or even the exposure to the inmates of a single large madhouse like Holly House, would have exposed Parkinson to a much larger number of lunatics than most people in London, even medical practitioners, ever encountered. He also attended the pauper lunatics housed at the parish workhouse, and he would have seen large numbers of other mentally disordered people wandering around Hoxton, perhaps begging, as well as in their homes. All of these settings would have provided him the opportunity for observing and distinguishing their movements and gestures.

Elaine Murphy has speculated about what made Hoxton such an attraction for people establishing institutions for housing the poor, the sick, and the mad before the enactment of the New Poor Law in 1834. It was a combination of the needs of smaller parishes, which did not have their own workhouses, and the visibility, familiarity, and in some cases grandeur, of the institutional buildings and houses of Hoxton, and of the houses that came to be used as institutions. Their prospects were enticing, and Murphy speaks of them as a splendid marketing feature.⁹¹

Seen in the aggregate, the sheer number of these institutions in such a small geographic area gave Hoxton and its surroundings an unusually high concentration of people with disabilities of one sort or another. Shoreditch was a place used not only for

⁹⁰ Murphy, "Mad Farming, Part 1," pp. 266-7, and "The Metropolitan Pauper Farms. 1777-1834," *London Journal* 2000; 27(1): 1-18, pp. 8-9. In the latter article, Murphy also alludes twice to another pauper farm, "Hughes and Phillips," which is likely the workhouse the 'Parishioner' lists as "Phillips." See also Tim Hitchcock and Robert Shoemaker, *London Lives: Crime, Poverty and Social Policy in the Metropolis: Workhouses*, for further discussion of these contract houses, including those of James Robertson and Thomas Tipple. www.londonlives.org/static/workhouses.jsp.

⁹¹ Murphy, "Mad Farming, Part 1", pp. 274-5.

housing its own considerable population of impoverished people, but also one in which other parishes and independent contractors arranged to place dependent people from other parts of London. As Tim Hitchcock remarks, “At Islington and Hoxton, in particular, by the end of the eighteenth century every other house seems to have been occupied by notoriously greedy poor law contractors.”⁹² The fragility and number of the unfortunate people housed in these institutions is reflected in the number of burials in the parish of St. Leonard’s Shoreditch. In their study about death in the workhouse in the London parishes in 1827, Jeremy Boulton and his colleagues report that Shoreditch had 2195 deaths, more than twice as many as any other parish except St. Mary Lambeth (which had 1953), with the proportion occurring in the workhouse being relatively small: a mere 6%. In other parishes, as many as 29% of deaths occurred in the workhouse. A great number of people were dying in Shoreditch, but, sick and frail though its inhabitants were, few of them were dying in the workhouse, a sobering indication of how precarious and ill the rest of the population was.⁹³

Parkinson lived within walking distance of the places he worked, and of the other institutions described here, many of whose inhabitants would occasionally have been visible outdoors. In the vicinity of Parkinson’s home and practice then, were the parish workhouse, five large private madhouses, at least fourteen almshouses, and a number of huge private contracted poorhouses and pauper farms. Parkinson’s walks, in combination with his work as particular institutions for the poor and mad, would probably have exposed him to more disabled people than could have been seen almost anywhere else in England. One would be hard pressed to find a better place in England for observing

⁹² Hitchcock, “Old Bailey on Line,” <http://www.oldbaileyonline.org/static/Rural-middlesex.jsp>.

⁹³ Boulton, ““These Antechambers of the Grave””, pp. 61-2.

people who moved abnormally.

Parkinson inhabited several different, but intersecting, worlds. Understanding his work, or at least his thinking, requires considering all of them. His practice in Shoreditch as a surgeon-apothecary, which was geographically and in some ways socially circumscribed, may have limited him in certain ways. But it did serve to locate him in a place with a remarkable variety of people to observe. Unlike many of his surgeon-apothecary contemporaries, he did not exhibit the kind of social upward mobility that led to seeking a medical degree, and for whatever reasons, he chose to remain in the place he grew up in, attending to its more unfortunate inhabitants, even as the neighborhood sank farther into poverty.

Parkinson's work as a surgeon-apothecary and the unusual features of his neighborhood gave him the opportunity to see disability in the aggregate and movement problems in considerable concentration: in his practice and dispensary work, in his inpatient work at the workhouse and in Hoxton's private madhouses, and maybe, for distinguishing the many kinds of abnormal gait, in the streets of Hoxton, a place crowded with the mad poor of the pauper farms and the impoverished, aged, or "decayed" inhabitants of Hoxton's almshouses.

Parkinson's remaining in the kind of practice he did has sometimes led later writers to characterize him as provincial. But that characterization neglects other parts of his intellectual and cultural life: his participation in the larger networks of knowledge and publishing in London; his connections to medical societies, to fellow naturalists, and to fellow agitators for political reform. Even in his practice among the poor, his professional

network extended enough beyond Shoreditch that he could call in Sir William Blizard, of the London Hospital, to consult on patients.⁹⁴

It was not just his training and practice as a surgeon-apothecary, and his exposure to the people who inhabited the streets and institutions of his neighborhood, but also his participation in learned societies that published and disseminated their work, and his training himself to marshal evidence, analyze observations, and articulate conclusions that were crucial for his later work on the shaking palsy. These allowed him to understand what he had observed and then to convey those observations to his particular circle, the learned medical community of London, through publication. Parkinson may not have been upwardly mobile in the conventional social sense, but in order to develop the requisite analytical and expository skills for such a complex undertaking as writing the *Essay* must have been, he had to venture intellectually beyond the borders of Shoreditch. As the next chapter will show, he began to do this when he was quite young.

⁹⁴ See James Parkinson, “A Case of Trismus, Successfully Treated,” by Mr. John Parkinson, Surgeon, Communicated by James Parkinson, Esq., *Medico-Chirurgical Transactions* 1811; 2: 293-7: “Mrs. D., a lady 50 years of age, of a spare habit, and delicate constitution, received, on the 19th of September, a compound fracture of the leg, for which she was attended by Sir William Blizard and myself,” p. 293.

CHAPTER 3

Seeing in Cases: James Parkinson in a Culture of Observation

On July 17, 1787, a lightning bolt hit the London neighborhood of Shoreditch, severely damaging a house in Crabtree-Row and striking and injuring two men. Neighbors sought James Parkinson, who lived nearby, to attend to the stricken men. Parkinson examined and treated the men, and he later recounted his observations of their injuries and treatment at a meeting of the London Medical Society. The paper he read, "Some Account of the Effects of Lightning," was published soon thereafter in the *Memoirs of the London Medical Society*.¹ The report took the familiar form of the case history and included the cases of four men altogether, the two men in Crabtree-Row and two others.² This is the first medical publication Parkinson is known to have published under his own name; it may be his first publication altogether.³ This article was written

¹ James Parkinson, "Some Account of the Effects of Lightning, by Mr. J. Parkinson, of Hoxton, Surgeon, and F. M. S.," *Memoirs of the Medical Society of London*, vol. II, 1789, pp. 493-507. Parkinson's biographer W. H. McMenemey questioned whether Parkinson read his paper at this meeting, or even whether the meeting occurred at all, expressing doubt that such a meeting would have been held on a Sunday. The published report clearly states, "Read February 2, 1787," a date that in fact fell on a Sunday. The presentation also was not recorded in the organization's transactions, though this alone is not conclusive-- not all orally presented cases were recorded in published meeting transactions. More problematic than the issue of Sundays meetings, however, is Parkinson's statement that the events he is describing occurred on July 17, 1787, five months after the case was supposedly read, p. 494. This case is mentioned frequently in Parkinson's biographies, but I have not seen this discrepancy noted. February 2, 1788, fell on a Saturday; the report may actually have been read then, the year before publication.

² Newspapers from the week of July 17, 1787, corroborate a lightning strike in the neighborhood on the day Parkinson mentions. *The London Chronicle* ("Postscript," Issue 4790, July 17-19, 1787), reported: "Tuesday [July 17th], at about two o'clock, as a person who is employed by the New River Company in laying down their pipes, was working near the Hare at Hoxton, he was struck by a flash of lightning, which blinded him, and burnt his arm in so terrible a manner, that it is feared he will never recover the use of it . . . A boy was killed on Tuesday in the fields near Shoreditch by the lightning, which makes the second accident of the kind near London by the late storm." These paragraphs were also printed unchanged in several other local newspapers during the week after the storm.

³ In 1780 there appeared in London an anonymously published critique of two works by Hugh Smith, a popular lecturer and London physician: his *Philosophy of Physic: Enlarged Syllabus of Philosophical Lectures Delivered by Hugh Smith, M.D., of Hatton-Street* (London: L. Davis, Holborn, 1778) and his *Philosophical Inquiries into the Laws of Animal Life. In Six Chapters*. (London: Printed for L. Davis, 1780). Some later writers have attributed the rather cutting critique, *Observations on Mr. Hugh Smith's*

when Parkinson was relatively young, but as this chapter will show, it demonstrates the development and early use of the kinds of observation and reasoning he later applied to the more complex issue of the shaking palsy.

Parkinson begins his narrative by describing what he first noticed upon entering the house in Crabtree-Row: being “disagreeably affected” by a smell that was “extremely pungent” and “very different from that peculiar odor produced by the electrical machine, even when batteries of considerable magnitude have been discharged: the smell, in the present instance, was that which is occasioned by the burning of sulphur.”⁴ That is, the odor registered as more chemical than electrical—not, perhaps, what Parkinson expected. His attention was then called to the more injured of the two men, who had been struck outside the house and carried inside, “to all appearances dead,” and who, “by the accounts of the neighbors, had remained in that state upwards of a quarter of an hour.”

“[W]hen I saw him, the vital organs had resumed their functions, but so very imperfectly as to render the circumstance of their having been suspended, highly credible: respiration was performed with much difficulty and irregularity; and the circulation of the blood still carried on so partially as not to be discoverable at all by the pulse in the lower extremities; nor, without extreme attention, in the arteries of the wrist, although the pulsation of the carotids, at the same time, was not perceptibly different from that which might be supposed to be natural.”⁵

The man’s posture, muscle tone, and ability to move were also affected:

“His head was bent considerably backwards, in which state it remained immoveable, notwithstanding his endeavors, and those of his attendants, to bring it forward. His countenance was flushed, and his eyes, which he had almost lost

Philosophy of Physic and His Two First Chapters of Philosophical Inquiries (London: Printed for the Author and Sold by James Macgowan, Pater-noster Row, and R. Faulder, Bond Street, 1780) to James Parkinson. If the attribution to Parkinson were accurate, this critique, which appeared when Parkinson was twenty-five years old, would represent his first published work. The attribution has been debated, but it is largely accepted. Because of the tract’s tone, style, and context, as well as the time in Parkinson’s life that it appeared, I think Parkinson was not the author, which would make the article described in this chapter his first known published work.

⁴ Parkinson, “Lightning,” pp. 493-4.

⁵ This man’s case is described in Parkinson, “Lightning,” pp. 495-7. The carotids are the large arteries in the neck.

the power of moving, were red, and, in consequence of their not being both directed to the same object, appeared wild and staring, which appearance was farther increased by the eyelids being widely opened, and the pupils considerably dilated.”

The man was clearly in dire straits, to the point where Parkinson compared his appearance to that of someone who had already died:

“His hands and legs resembled those of a corpse, being excessively cold, and of a dark livid color, nearly approaching to black. A large red streak appeared on his right side, and several lesser ones on his legs, the skin in all those places being evidently scorched. He complained of a total loss of sense and motion in the lower extremities, and of much pain in the head and chest; which last was aggravated by a frequent cough, by which a considerable quantity of blood was thrown up.”

The picture, though soberly presented, is of horrendous injury seen up close. Reading his account, one can almost see the scorch marks and smell the room.

Here, after describing the lightning’s effects on the first injured man, Parkinson presents his assessment of the man’s condition, the medical treatment he has provided, and the results of that treatment. But he describes these all somewhat more briefly than his observations of the man’s body itself. The signs and symptoms indicated to him “a congestion of blood in the head and lungs.” To relieve the congestion, six ounces of blood were removed, though with difficulty, and the man was put to bed between blankets, his hands and legs wrapped in “flannels wetted with volatile liniment,” and he was given a draught of water as hot as he could tolerate, and brandy with 18 grams of volatile salt, all with the purpose of warming him.⁶

⁶ Volatile liniment is “*linimentum ammoniae*,” a combination of ammonia water and olive oil. This remedy was used as an antiseptic gargle, a warm tonic, or, as in this case, when it was applied externally as a sudorific, to induce sweating. See J. Worth Estes, *Dictionary of Protopharmacology: Therapeutic Practices, 1700-1850* (Canton, Massachusetts: Science History Publications, 1990), pp. 9 and 206. Volatile salts are “*sal volatile oleosum*,” the same as *spiritus ammoniae aromaticus*, p. 207.

After breaking into “an universal sweat,” he went to sleep and awakened two hours later, relieved. The pain in his head and chest had disappeared, “the spitting of blood had stopped, the muscles at the back of the neck relaxed and the use of the limbs restored.” Parkinson then deemed him enough recovered to have him removed by coach to his own house in neighboring Limehouse, thereby ending his treatment of the man. To this story, Parkinson adds a footnote: “I have since been informed by him, that a pain came on so violent in his hands and legs, as to confine him for a fortnight afterwards.”

Parkinson phrases his assessment of this first man’s condition in the context of a humoral understanding of his individual, and mostly localized, findings. Ordinarily at this time, particularly in a more medical and less surgical setting, reaching a diagnosis would require integrating all the features of an illness: the patient’s narrative, which would incorporate the history of the illness and some ideas about its nature and causes, as well as the doctor’s observations and interpretation. All of these would be integrated into a negotiated diagnosis. What has occurred in this case—a lightning injury—is so clear that the usually complex process of formulating a diagnosis is shortcut. As was often the case when surgeons were called to treat sudden catastrophic injury, a lengthy negotiation about what the diagnosis was and about what had caused the derangement, one that incorporated the individual narrative provided by the patient, was subverted. The patient could not “tell” the physician the diagnosis, at least in words. Initially insensate, Parkinson’s patient was able to describe his pain, but his narrative not surprisingly does not feature large here. Indeed, it is surprising that he could talk at all.

Parkinson’s task, however, required him to think further diagnostically and to infer what the lightning had wrought inside the man’s body as well, deducing from the

external signs left on the body what its internal derangements were. These he expresses in a constitutional rather than a localized idiom, and the appropriate treatments follow in a logical and traditional way. A congestion of blood, for example, is treated by bleeding, and cold lifelessness remedied by various kinds of warmth: blankets, liniment, hot water, and brandy. As was often the case in the practices of surgeon-apothecaries at this time, external conditions and injuries were treated manually, with surgical techniques and topical remedies, and more internal conditions were treated employing the different, and even seemingly mutually exclusive, theoretical framework of constitutional medicine: that is, framing the conditions as humoral derangements.⁷ It would be an oversimplification to say that internal derangements and illnesses were seen as constitutional and exterior derangement and injuries were understood as localized lesions; in the current case, for example, all of the derangements follow an injury coming from outside, from a lightning strike.

In his recounting of the case, the reader senses that, once the patient has been observed, the assessment and the necessary treatment follow so clearly from the observed signs that they can be noted almost in shorthand, a touch staccato. Parkinson seems to assume that they will be understood, and maybe even anticipated, by the reader. But the recorded observations of the lightning's effects, as he presents them, are different: they are far more vivid, detailed, and immediate, phrased with understated wonder. One

⁷ See, for example, the work of Lucinda Beier on surgical treatment of external or localized problems that was based on a humoral understanding of the workings of the body: Lucinda McCray Beier, "Seventeenth-Century English Surgery: The Casebook of Joseph Binns," in Christopher Lawrence, ed., *Medical Theory, Surgical Practice: Studies in the History of Surgery* (London and New York: Routledge, 1992), pp. 48-84. Several chapters of this book address the tension between what surgeons observed in examining the body and the medically-based conceptual frameworks that were available to them for interpreting those observations. From another perspective, see Olivia Weisser, "Boils, Pushes and Wheals: Reading Bumps on the Body in Early Modern England," *Social History of Medicine* 2009; 22(2): 321-339, in which Weisser shows how bumps in the skin were interpreted by surgeons not only constitutionally but through what she describes as "a rich semiotics" of their own.

senses that, while some of things he has just seen are familiar, others he is seeing for the first time, and he is disciplining himself to remain focused for long enough to get the description just right.

Having attended to the first man, Parkinson examined the second man, who had been in a shop inside the building when the lightning struck. He conveys this second man's story, which is less complete, mostly by comparison to the first man's condition.⁸ The second man, Parkinson was told, had "lain senseless" for some minutes but had recovered somewhat before Parkinson arrived. He too had pain in the head and chest, but he had not spit up blood. His hands had "the same cadaverous appearance" seen in the first man's lower extremities, but "if possible, in a greater degree, as the fingers toward their ends, were shriveled and black;" his extremities less so. He too had a red streak on his right side, "about two inches wide . . . from which, on each side, several ramifications branched out." Several similar streaks on his legs and an arm, all with branching ramifications, produced a burning pain.

Parkinson does not offer a separate assessment of this second man; his assessment is likewise that lightning struck him. But he notes that he was treated "in every respect like his fellow sufferer, and with the same beneficial effects;" thus the two men's injuries function almost here as a single case. In the absence of separate interpretations of what the lightning's external effects might indicate about the interiors the two men, Parkinson's identical treatment of them suggests that the interpretation was the same for both of them. For the purpose of determining the proper treatment, what they shared—certain effects of being hit by lightning—superseded whatever their unique and differing constitutions would have dictated.

⁸ This man's case is described in Parkinson, "Lightning," pp. 497-9.

The only difference between the men's treatments was external: the second man's burning pain persisted "where the lightning had so beautifully marked him," and Parkinson prescribed a saturnine lotion to good effect.⁹ The pain decreased; after two days, the streaks had turned "a brownish colour" and, a few days after that, had disappeared except for "the roughness of the cuticle, which was then peeling off." Once again, the detail of Parkinson's physical description far eclipses the recounting of his diagnostic interpretation of the lightning's internal effects, and of his clinical reasoning and rationale for his choice of treatments. The implication is that the reader will already be familiar with these things: that diagnosis is not needed, because it is obvious, and what is important is what he actually observed: the beauty of the branching scorch marks, the roughness of the cuticle.

Parkinson did not stop with the medical aspects of this case, however; instead, he went on, describing what had happened to the man's clothes, as if they were continuous with his body, which in some sense they had become: "one of his sleeve buttons was melted, but his wrist was not in the least burnt, the skin being only discoloured, as if with smoke."¹⁰ One of his buckles was also melted in two places "in the part nearer the leg, and in that nearest the toes, by which his foot was rather burnt." Parkinson's tone

⁹ Saturnine ointment is a soothing, cooling, and desiccating skin ointment made from twenty parts of "simple ointment," a combination of olive oil and white beeswax, and one part of *cerussa acetata*, or lead acetate. Estes, *Protopharmacology*, pp. 44, 117, and 173.

¹⁰ This description of the measured tone of Parkinson's published observations about people and things is not intended to suggest that he lacked empathy for his patients or that he was a practitioner so interested in theory that his clinical gaze detached him from his patients' suffering. He is explicit elsewhere about the requirement for empathy in medical practitioners: "A sympathetic concern, and a tender interest for the sufferings of others, ought to characterize all those who engage themselves in a profession, the object of which should be to mitigate or remove, one great portion of the calamities to which humanity is subject. For he, who can view the sufferings of a fellow-creature with unconcern, will, there is too much reason to fear, sometimes neglect the opportunities of administering the required relief: that relief which he could with ease bestow, and which he withholds only from his not feeling, with due force, the afflicting urgency of the claim, which is made on him." James Parkinson, *The Hospital Pupil; Or An Essay Intended to Facilitate the Study of Medicine and Surgery* (London: H. D. Symonds, 1800), p. 11.

describing the inanimate objects is precisely the same as that describing scorched shriveled fingers. He is observing the lightning's effects on the body in exactly the same way, using exactly the same observational practice. The inanimate and the corporeal here become in some way continuous, both part of the natural world, described with identical skills and practices. In both, there is the same cataloguing of the familiar commingled with the watchful limning of the unprecedented or unfamiliar.

In this article, Parkinson is not simply describing the manifestations of lightning injury and the success of rational, humoral-based therapy for the purpose of providing useful information for the next practitioner by showing the effectiveness of a particular set of treatments for a particular set of conditions. He is also recording, more implicitly, the process of observation itself. He is illuminating a set of observational practices: what he does when he looks at something, what he looks for, and, when he is not looking *for* anything in particular but simply *at* an object, what he sees revealed. As in all of Parkinson's writings, here he describes observed phenomena so fluently and clearly that it is easy to underestimate the effort and training that underlay both the observation itself and his choice of words and formats for recording what he had observed.

Long after he published this description, Parkinson went on to write *An Essay on the Shaking Palsy*, the book for which he remains famous, mostly because of its description of the disease's manifestations. Because he left no writings that assist one to understand what he had previously learned about problems with physical movement, or how he learned to observe and distinguish them, or what he struggled to find words and concepts to explain, these things have to be surmised from the evidence that remains: from things he wrote in other contexts, from his social and professional interactions,

activities, and relationships that we know about; from information about his practice environment, and from the sources he acknowledged in his writings. Parkinson participated in several spheres of cultural life outside medicine, including chemistry, drawing, mineralogy and the study of fossils.

One crucial characteristic that these activities shared was the fostering and ultimately training, in specific different ways, of Parkinson's faculties of observation. In a sense, Parkinson inhabited a set of overlapping cultures of observation, each of which allowed him to see with a different eye, so to speak, and each of which contributed to his ultimately being able to observe the shaking palsy. His observational skills were slightly unusual even for his time, not simply because of their variety, as there were many physician naturalists who sketched in the late eighteenth century, but because his involvement in each of them was so intense.

The seeds of his ability to describe clinical phenomena with great precision are evident here in his description, published thirty years before the *Essay*, of the men hit by lightning; the contributions of all the individual streams are visible. Parkinson wrote his case of the lightning early in his career, but this paper, perhaps better than any of his many intervening published medical works, shows exactly how he observed: the process, the recording, and, crucially, the interpretation of what he has seen.¹¹ Just as he does later in the *Essay*, in this first paper about lightning, Parkinson examines a series of cases,

¹¹ Parkinson wrote works about hydrophobia, gout, typhus and other conditions, as well as medical handbooks and guides for families; these are listed in Appendix 1. His concerns are consistent throughout in these works, but they are less useful than the lightning case for tracking the thinking that ultimately allowed him to formulate the shaking palsy. Some are co-authored by his son, thereby obscuring which were his own contributions, and other works are less explicit about his observational process, though it remains implicit.

describing what he sees in each case in turn, and draws conclusions from the not-so-obvious things they have in common.

In their recent work on the history of scientific observation, Lorraine Daston, Elizabeth Lunbeck, and their colleagues have taken the phenomenon of scientific observation, a topic surprisingly under-examined in recent history given its importance for creating scientific knowledge, and examined it as a subject worthy of historical analysis in itself, rather than merely for the information it produces.¹² By the eighteenth century, individual observation had become a valued faculty, and the respect accorded to individual observations had increased over time, particularly after the mid-sixteenth century. Parkinson was writing in an Enlightenment era when observation in itself, the straightforward recording and cataloguing of the phenomena observed, had become a major component of furthering knowledge in science. A categorizing and classifying imperative underlay scientific work in many disciplines, with prodigious effort dedicated to the proper ordering and cataloguing, often rooted in complex and hierarchical conceptual frameworks, of all the variety of the natural world.¹³ This classifying zeal was

¹² Lorraine Daston and Elizabeth Lunbeck, eds., *The History of Scientific Observation* (Chicago and London: The University of Chicago Press, 2011). In their introduction, Daston and Lunbeck note that, “Throughout its long history, observation has always been a form of knowledge that straddled the boundary between art and science, high and low sciences, elite and popular practices. As a practice, observation is an engine of discovery and a bulwark of evidence . . . The very word “observation” is suggestively ambiguous: at once a process, a product, an all-consuming pursuit,” pp. 7-8. The first chapters of this book record the changing status of individual observations over centuries: the degree of respect they were accorded; the limited permitted scope for them between the late Middle Ages and the mid 1600s; the increasingly active nature of observations and their recording; the emergence of the observations themselves as science rather than as adjuncts to the writings of ancient authors; then the increasing touting, in the Enlightenment, of observing for oneself, including in controlled experiment.

¹³ This process is described in general, and in detail for separate disciplines, in N. Jardine, J. A. Secord, and E. C. Spary, eds., *Cultures of Natural History* (Cambridge: Cambridge University Press, 1996). See, for example, Martin Rudwick, “Minerals, Strata, and Fossils,” pp. 166-86, which discusses the later eighteenth century: “As in botany and zoology, the fundamental scientific goal [in mineralogy] was simply to describe, name and classify the diverse riches of nature. Minerals, no less than plants and animals, were to be described in terms of their natural *species*: species such as quartz and feldspar, no less than species of daisies and deer. But most mineralogists, like other naturalists, were not content to identify and name their

also animating medicine, where effort was dedicated to cataloguing and classifying diseases and, incipiently, to correlating inner pathology and deranged physiology with outer symptoms.

In botany, natural history, and earth science, as in medicine, observation was the means of categorizing natural phenomena: of finding a way to catalogue the phenomena of the earth and to put them in order, and then to communicate that order to a wider intellectual community, thereby fostering consensus and stimulating further communication.¹⁴ Ordering natural phenomena was in itself a means of organizing knowledge. In this enterprise, which by the Enlightenment had abandoned the classical Aristotelian notions of causality, observation itself, rather than the positing of biological etiology, was the end. Such classifying did not necessarily explain, but it was not expected to.

This had not always been the case; individual observations had been held in relatively low regard in the Middle Ages, acceptable in situations in which the works of ancient authorities were insufficient guides. In what remains a useful distinction for looking at Parkinson's observational practices, the scholarly vocabulary of the Middle Ages differentiated between types of observing, between experience (*experimentum* or *experientia*) and observation (*observatio*). *Experimentum* suggested a test, trial, or set of directions, while *experientia* suggested knowledge derived from the use of the unaided senses. The word *observatio*, aside from denoting the empirical study of phenomena, had a normative sense, as in the observance of rules (one can observe birds, and one can

specimens. They wanted to construct a classification that would assemble similar minerals into a nesting set of groups, and so reveal the hierarchical structure of the diversity of the whole mineral kingdom," p. 169.

¹⁴ On the importance of standardizing terminology and the naming of natural phenomena for the purposes of communication and furthering knowledge, see James Gleick, *The Information: A History, A Theory, A Flood* (New York: Pantheon Books, 2011).

observe the Sabbath).¹⁵ Observation could be undertaken to corroborate the writings of authorities, but it could have other goals as well: probing and testing, in the old sense of *experimentum*; attentively watching, without probing or expecting a particular result, in the old sense of *experientia*; and gathering observations for recording.

Gianna Pomata's recent work particularizes these ideas to medicine, tracing how in the early modern period individual medical observations began to become public. No longer were they merely marginalia written into copies of the works of authorities, or even simply the illustrative cases provided as examples in the learned discussions published as consultations or *Consilia*. They began to appear alone, without the learned commentary, in a format that allowed physicians to describe medical situations that they themselves had witnessed. In the respected tradition of the Hippocratic *Epidemics I* and *III*, these published *Observationes*, emerging first in the mid-sixteenth-century in the form of grouped individual case histories, began to assume a recognized structure, becoming what Pomata deems a new epistemic genre, one that performed a particular set of social and epistemological functions in communicating knowledge about disease.¹⁶

As Pomata notes, the publishing of *Observationes*, and by extension later, case histories, allowed physicians who would otherwise not have been publishing to

¹⁵ This path is traced by Katharine Park, "Observation in the Margins, 500-1500," in: Daston and Lunbeck, eds., *The History of Scientific Observation*, pp. 15-44. Park notes that in the Middle Ages, observation was mostly useful for filling the gaps left in the accounts of earlier authors and for addressing matters still in controversy: things that required empirical study were those that were too complex, contingent, unique, or numerous and varied to be deduced (pp. 15-16). Increasingly, however, sensory engagement was required and employed when information "could not be derived from first principles." Park differentiates between *experimentum*, in the sense of a test, trial or set of directions "purportedly derived from and tested by experience, including both purposeful experience and trial and error," (p.16), and *experientia*, which suggested knowledge derived from the use of the unaided senses (p. 17). *Observatio*, aside from referring to "the empirical study of phenomena, had a normative sense as well in the sense of observance of rules (p. 21)." The dual meaning of the Latin *observatio* persists in the English equivalent, denoting both observation (gathering empirical information) and observance (adhering to rules based on study), pp.16-21.

¹⁶ Gianna Pomata, "Observation Rising: Birth of an Epistemic Genre, 1500-1650," in Daston and Lunbeck, eds., *The History of Scientific Observation*, pp. 45-80; and "Sharing Cases: The *Observationes* in Early Modern Medicine," *Early Science and Medicine* 2010; 15(3): 193-236.

communicate their experiences to larger and geographically more disparate intellectual communities than would have been possible previously. She notes that many of the early composers of *Observationes* and of the similar *Curationes*, which reported instances of successful treatment, were town physicians and practitioners rather than university teachers and theoreticians. The format gave these practitioners a public and intellectual forum that was unmediated by the university physicians, one that allowed them to improve their individual reputations by demonstrating their medical and observational skills. At an epistemological level, the format served to elevate the status of individual cases and observations, and thus of practice itself, as opposed to theory, by recognizing such findings as new knowledge worthy of publication. In this way, published case histories served to democratize and broaden the scope of the medical corpus by opening the virtual world of written communication, and the intellectual communities they comprised, to practitioners and practice.¹⁷

Thus, when Parkinson chose the format of the case history for communicating his observations about the men struck by lightning, he was employing a familiar and traditional format, one with roots extending back at least to the Hippocratic *Epidemics*. Case histories had a specified narrative structure with which Parkinson's readers would have been familiar. When he was writing in the late eighteenth century, they were vehicles for communicating an enormous amount of new medical knowledge. Hundreds of cases were being published in the burgeoning medical periodical literature in London,

¹⁷ Pomata notes that by creating epistolary networks and fostering the sharing of cases, "the history of the *observationes* is also the history of the successful attempt to turn a virtual *res publica medica* into a real community, bound together by forms of shared identity and authorship." See Pomata, "Sharing Cases," p. 224, and "Observation Rising," p. 62. The map of the early *observationes*, she says, "featured prominently the periphery, not the centres of medical learning." Although most of the authors of *observationes* had extensively traveled as students and passed some of their time in universities, "they often wrote and published their observations after a lifetime of practice in small towns." Pomata, "Sharing Cases," p. 229.

where the dissemination of knowledge was facilitated by the increasing ease of printing and urban access to its products.¹⁸ Thus, what seems like the straightforward recounting by Parkinson of an unusual medical situation actually followed a fairly tightly prescribed format designed for recording individual cases and ultimately for creating medical knowledge. Its narrative structure was both set and elastic. The order and necessary components were understood, but the degree of elaboration of any of the components was left to the describer.

In the standard eighteenth-century case narrative, the patient's situation was described first. In the lightning cases, the patient's story was commingled with the doctor's observations: what the doctor saw and felt, and occasionally smelled or heard, and even with the doctor's interpretations of both.¹⁹ This "history" included the nature, location, and timing of symptoms; any observed alteration of function; the results of previous treatment; and aspects of the patient's life or environment that may have contributed to the disease.²⁰ In the case of the men who were hit by lightning, or any sufferer unable to give a history, the history had to be conveyed by other observers, who

¹⁸ See, for example, Susan Lawrence's discussion of the proliferation of "[t]exts, periodicals, and—most emblematic of the new urban life of this period-- novels and newspapers" that rolled off the presses in Britain following the deliberate lapse in 1695 of the Licensing Act, which had legalized censorship and limited the number of printing presses. Susan Lawrence, *Charitable Knowledge: Hospital Pupils and Practitioners in Eighteenth-Century London* (Cambridge: Cambridge University Press, 1996), p. 9. This proliferation included medical literature.

¹⁹ Here [and throughout this chapter] I use the word "doctor" not to indicate someone with university training in medicine but rather to denote any of the several kinds of practitioner (particularly surgeon-apothecaries) who would have been called to see patients in a general practice at this time in London, when the boundaries between types of practitioners and their practices were becoming increasingly fluid.

²⁰ Through the late eighteenth century, the patient's "history" and the doctor's observations were not conceptualized separately, and to separate them in retrospect would be anachronistic. See, e.g., Susan Lawrence, "Educating the Senses: Students, Teachers and Medical Rhetoric in Eighteenth-Century London," in William F. Bynum and Roy Porter, eds., *Medicine and the Five Senses* (Cambridge: Cambridge University Press, 1993), pp. 154-178, p. 155: "... while students were told that there were two obvious sources of sensory knowledge, what was 'either felt by the patient [or] observed by the physician', as usually taught, these two realms were inseparable when identifying and treating disease in the late eighteenth century." See also Roy Porter, "The Rise of the Physical Examination," in Bynum and Porter, eds., *Medicine and the Five Senses*, pp. 179-197, especially pp. 179-82, where he describes the scope of the patient's history at this time.

were necessarily unable to describe the symptoms the way the sufferer would, because they could not feel them.

All these bits of information contributed to the history, forming the background that was taken into account by the doctor in making an assessment, coming to a diagnosis, and choosing a treatment. These constituted the subsequent parts of the narrative. The effects and aftermath of the treatment were then noted, in a way that allowed the whole narrative to be reworked and interpreted through the lens of the prevailing theoretical framework, one that encompassed both the disease concepts from which the diagnosis had emerged and the therapeutic framework from which the treatments were chosen. At times of conceptual transition like the late eighteenth century, these frameworks may have been different, and even seemingly mutually exclusive, as was the case with the localist and humoral views of disease, but in fact they were presented syncretically, as in this case. The case history format may even have fostered a seeming integration of these apparently contradictory frameworks.

The format of the case history thus gave doctors in Parkinson's time a structured way of recording their own observations and experiences of an individual case; it provided a kind of grammar of observational practice. It also allowed doctors not only to interpret these individual observations through the prism of a theoretical framework that made them comprehensible as more than random observations ("mere" empiricism), but it conferred validity by allowing them to transform their observations into new knowledge to be communicated to others, linking their observations to a larger intellectual tradition. As a format, the case history thus had a broadening and popularizing function, being easily accessible on many different levels.

It is in part its multiple functions that made the case history so resilient and persistent a format: its content and narrative structure are easily understood, but it can perform conceptual work on different levels. Its utility and elasticity are such that cultures as disparate as Ming Dynasty China and eighteenth-century London have produced versions of case histories as a way of refining medical knowledge.²¹ Part of the format's work is to mediate epistemological tensions in communicating medical knowledge, tensions that are not limited to a single time or place. It can mediate because of its somewhat liminal nature; its elastic but firm format helps to resolve the tensions between the polarities in several domains.²²

In a concrete way, case histories serve to mediate between the two scorned extremes of naïve or “mere” empiricism, in which each individual case or observation remains just that, and is never generalized or interpreted in the context of a series, and the excesses of theory or “system,” in which precepts remain abstract and unillustrated, unintegrated with observable phenomena.²³ The case history's explanatory codas, by

²¹ See, for example, Charlotte Furth, “Producing Medical Knowledge with Cases: History, Evidence, and Action,” in Charlotte Furth, Judith T. Zeitlin, and Ping-chen Hsiung, *Thinking with Cases: Specialist Knowledge in Chinese Cultural History* (Honolulu: University of Hawaii Press, 2007), pp. 125-51. Furth's discussion of the evolution of published case histories in China, especially those collected during the Ming Dynasty, shows what she calls “evidential reasoning through a culturally inflected lens,” p. 125, and simultaneously demonstrates notable parallels to Pomata's discussion of the *Observationes* of early modern Europe, including their enhancing the prestige of the literary physicians in a context of widening networks of communication and flourishing booksellers, p. 131. In a society bound by imperial statutory codes, and with a medical culture defined and directed by the classics, Furth shows that case histories both permit and provide a socially and politically acceptable way to make new contributions to knowledge in medicine “without breaking with the sacralized authority of canon or medical sages,” while providing a format amenable to further innovation.

²² About the analogous balancing function of the case history in Ming China, Charlotte Furth notes, “The case history, with its emphasis upon the particular, the contingent, and the situational, mediated the tension between canon and doctrine on the one hand and clinical practice on the other.” “Producing Medical Knowledge,” p. 132.

²³ Groups of this kind of case remain, in a sense, a simple collection of “this case” and “this case” and “this case” and “this case” and so on, all undigested, so to speak, and with the organizing principle that underlies their grouping unexplored. Though Hippocratic works were considered in some ways sacrosanct, this can be seen in some of the cases recorded in the Hippocratic *Epidemics*, where observation is acute, but the purpose of recording the cases is not to foster generalization about specific diseases from them. The

employing reason and theory to interpret each case's individual details, prevent the observations it elaborates from being dismissed as merely unique or anecdotal.

In a diagnostic world poised, as late eighteenth-century London was, between the individual and the general, the humoral and the organ-based, the physiologic and the ontologic, and the shared and the individual, the medical case history was an ideal medium for navigating these tensions.²⁴ It mediated between inductive and deductive reasoning, allowing generalization from individual cases, while simultaneously fostering the practical application of the theoretical. It balanced and clarified the over-general and theoretical, the excess of "system," making intellectual space for the various places where the doctor and the patient actually meet: in the patient's story and the doctor's observations, the patient's beliefs about the nature of the illness, and the doctor's assessment. There is space here for linking individual experience to a common body of knowledge, but also a space for presenting counterexamples to received wisdom that seem somehow to deviate from current knowledge. In tightly controlled social environments, the case history format thereby allows a writer, in the guise of furthering

illnesses they describe are assumed in their nature to be individual, so they remain ungeneralized, and each is interpreted in terms of the individual constitution of its sufferer. See "Epidemics I" and "Epidemics III," in G. E. R. Lloyd, John Chadwick, and W. N. Mann, eds., *Hippocratic Writings* (Harmondsworth: Penguin, 1983).

²⁴ In brief, the physiologic view of disease posited that disease is a constitutional derangement of an individual patient, unusually described as an imbalance of the humors; according to this view, diseases do not exist as such outside the individual. According to the ontologic view, diseases do have an existence outside the individual and can be named; they exist as entities. The mediating of the tensions described above, and the attempts to reconcile individual constitution with the localized view of disease, are especially clear in the cases Giovanni Battista Morgagni published in *De Sedibus, Et Causis Morborum Per Anatomen Indagatis: Libri Quinque . . .* (Lovanii: Typographia Academica, 1766), published in English as *The Seats and Causes of Diseases Investigated by Anatomy: In Five Books, Containing a Great Variety of Dissections, with Remarks. To Which Are Added Very Accurate and Copious Indexes of the Principal Things and Names Therein Contained*, translated by Benjamin Alexander, and edited by Paul Klemperer (New York: Hafner, 1960); and in his collected *consilia*, edited by Saul Jarcho, *The Clinical Consultations of Giambattista Morgagni: The Edition of Enrico Benassi* (1935) (Boston: Francis A. Countway Library of Medicine, 1984).

knowledge, politely to pose subtle challenges to authority, quietly privileging practice over theory.²⁵

Parkinson's paper about the men hit by lightning would have remained a straightforward dual medical case history had it ended with the second man's recovery: his skin going through several stages of healing and finally reverting to normal after treatment with the saturnine lotion. Had he stopped here, his paper would not have been so easy to differentiate from the many other contemporary published accounts of people hit by lightning, though the vivid ordered detail of his description remains unusual. Concern about the many people injured and killed by lightning, a particular hazard for church bell-ringers, combined with natural philosophers' interest in lightning as an electrical phenomenon to make it a compelling topic for learned correspondence at the time.²⁶ Most reports of these cases describe the effects on a single structure, or persons, or group of people, of a single lightning bolt. They are written partly as minute observations on the phenomena observed, often as communications about natural philosophy from the periphery to the metropolis and the Royal Society, but also partly as reports of the wondrous.

But Parkinson did not end the paper after describing the two men. After an interlude in which he recorded other observations and his ideas about them, he added two other cases, transforming his dual case history of a single lightning strike into a different

²⁵ See Furth, "Producing Medical Knowledge," pp. 132-3.

²⁶ See, for example, "Account of a Remarkable Thunder Storm: In a Letter from the Rev. Anthony Williams, Rector of St. Keverne, in Cornwall, to the Rev. William Borlase, D.D., F.R.S.," *Philosophical Transactions of the Royal Society* 1771; 61: 71-7; and "An Account of the Death of a Person destroyed by Lightning in the Chapel in Tottenham-Court-Road, and its effects on the Building; as observed by Mr. William Henly, Mr. Edward Nairne, and Mr. William Jones. The Account written by Mr. Henly," *Philosophical Transactions of the Royal Society* 1772; 62: 131-6. Both report the results of lightning in considerable detail, but neither abstracts from the episode to theorize about causes. See also James Delbourgo, *A Most Amazing Scene of Wonders: Electricity and Enlightenment in Early America* (Cambridge, Massachusetts and London: Harvard University Press, 2006).

kind of case series. Case series differ from case histories in more than just the number of situations described. There is a subtle change of emphasis as well. In the single case history, the observations about a single person are placed in the context of the current theoretical understanding of that individual. In a case series, the focus is shifted ever so slightly away from the individual and toward the general, away from each patient's unique circumstances and toward whatever the cases share, often the signs and symptoms that led the observer to the same diagnosis in the different cases. Though the separate cases' individual qualities are conveyed, attention nonetheless moves further away from the constitutional and toward the ontologic. Embedded in a case series, then, is not simply what the described patients shared, but, implicitly, what the conceptual framework was that led the observer to group separate people, who necessarily had unique histories, together.

In Parkinson's case about the lightning, he illuminates the deeper purpose of his report, and the concepts underlying his grouping of phenomena, only after his description of the second man's treatment. He has already suggested this approach by discussing his assessment and treatment of the second lightning victim in terms of the first, thereby slightly diminishing the reader's appreciation of, and the significance of, the second man's unique constitution and subtly emphasizing what the two men had in common. At this point he stops describing patients altogether for a bit and, in a kind of interlude, the equivalent of a musical bridge, he describes what lightning did to the house in Crabtree-Row: what happened to inanimate objects and material substances when lightning struck.

It is significant that the transition here is smooth: Parkinson reverts, in a way, to the melted buttons and buckle he had been describing before recounting the second man's

treatment. He continues seamlessly, describing what had happened to the other objects in the lightning's path, first the human bodies, and then the buttons, buckles, walls, and windows, observing and cataloguing the damage the building had sustained as meticulously as the damage to the men's bodies, and even, in a few places, in the same sentence.

“[T]he tiles were found to have been broken by the lightning in several places; the frame of a sash window on the ground floor, was split, where the hinges were fixed, and one of the hinges was driven, at its upper end, nearly half an inch into the wood; whilst the lower end was, with the nails, raised up to about the same distance, the iron at this end being evidently melted. The glass was broken, and the lead of the shop windows, up one pair of stairs, melted in so many places, as to shew plainly, that the lightning had taken its course, in seven or eight different lines, on the outside of the house, as indeed might have been expected, the house having been wetted by the preceding shower.”²⁷

The materials making up the house are described in the same way as those in the clothing; the melted metal of the house's hinges, the melted buckles, and the melted buttons form a continuity. The clothing here is transitional, part of both the body and the inanimate world.

At this point Parkinson abruptly becomes explicitly theoretical, moving to a different level of inference: from recording his basic observations of the effects of the lightning, to making inferences about the path the lightning must have taken, and then to the yet more abstract level of reasoning about why it might have taken that path. He applies knowledge he already has about electricity and chemistry to hypothesizing about why particular parts of the house, composed of particular substances, were damaged when others remained unscathed:

“Whenever the lightning had changed its conducting substance, there it had left evident marks of its power; and this appeared to be in proportion to the difference of conducting power between the two substances; thus, by its passage from the

²⁷ Parkinson, “Lightning,” pp. 499-500.

bricks to the wood, but little injury was done; but when it reached the iron hinges, the wood was split and the iron melted: and again, where it had passed from the frame of the window to the lead, the lead was melted, and the glass broken, and covered with a black impalpable powder.”²⁸

Parkinson does not go quite so far as to speculate in print about whether the lightning damaged the men’s bodies in analogous way to how it damaged the house; that is, at the boundaries between types of substances in the body, bone and soft tissue and fluid, with their different degrees of conductivity, but the idea remains implicit.

What he does speculate about is the explanation for the unusual series of colors observed on the skin after the lightning struck, and then during the phases of treatment, as these colors seem “to mark plainly the mode in which lightning affects the animal system.”

“[T]he circumstance alluded to, is the change of colour which took place in the extremities; these, when I first saw them were, as I have already said, nearly black; but, upon friction being used to them, they became of a deadly white, which hue they preserved as long as the friction was continued; but upon omission of that, the former colour returned. From this circumstance arose a very singular appearance on the legs of the younger of the men; for, previous to friction being used to them, the ramifications, which were then of a deep crimson, were displayed on a dark purple ground; but after the legs had been rubbed a few seconds, the ground became white and the branches of a pale pink.”²⁹

Parkinson shows here that color has meaning for him, and he analyzes closely the color changes resulting from a little *experimentum*, or test: watching what happens to the extremities when friction is applied and then withdrawn. His color vocabulary is precise. The process, and even the words Parkinson chooses, are very Hunterian: observing the effects of an external force on the animal system, and viewing the men in terms of animal systems in the first place.

²⁸ Parkinson, “Lightning,” p. 500.

²⁹ Parkinson, “Lightning,” p. 501.

Here, his first set of observations, of two men and a house, complete, he interprets what he has observed, offering his theory about what the lightning has done to the invisible parts of the men's bodies: those too small, or too interior, to be seen directly:

“May it not be supposed, from the above appearances, that the blood vessels of the limbs had so far lost their contractile power, in consequence of the excessive action produced immediately before, by the violence of the stimulus which had been applied, that the arteries were no longer able to protrude the blood; but remaining inactive, or nearly so, suffered the blood to pass into them, which required the aid of friction, to urge it back through the veins to the heart? That the electric fluid acts as a stimulus upon the animal system, must, I believe, be allowed; but that its stimulating effects are more transient, and the succeeding state of debility consequently more rapidly produced, than what results from the application of any other known stimulus, must, I think, also be allowed.”

Once again, Parkinson has embedded into his description his physiologic understanding of how the blood vessels, which are not directly observable, are behaving. But he also goes a level farther in abstraction, to posit a hypothesis about why this has happened. Incorporating ideas about muscular contraction, the propulsion of the blood, and the stimulating nature of the electrical fluid, he goes from observation to interpretation to explanation, in the form of a possible etiology.

If this article were following the usual format of the published case history, this posited explanation would have ended the case and also the report. This was how cases were usually reported; case series as such were not nearly so common. Instead, the musical bridge completed, so to speak, Parkinson presents a third case, one that represents something of a curve ball. The patient isn't really a patient; he is already dead. And he hasn't been struck by lightning; he has drowned. When Parkinson first sees this boy, he has already been under water “upwards of one hour, and two hours more had been spent in fruitlessly trying to procure his recovery.”³⁰ His inclusion is interesting

³⁰ This third case is described in Parkinson, “Lightning,” pp. 502-3.

because of the *reason* Parkinson included him. He is presented, it turns out, in the context of what Parkinson has just been discussing: the transience of the effects of electrical stimuli.

This third case would not have appeared here except for a peculiar circumstance: that Parkinson happened, when asked to see the boy, to have in his pocket “a portable electrical machine.” This circumstance too suggested an experiment; Parkinson was, he says, “induced to make a trial of the effects of electricity.”

“[A]s soon therefore as a small charge of the phial was supposed to be procured, I, to try the strength of the charge, took the shock, making one arm of the youth a part of the circuit made by the electrical fluid; the shock to me was trivial, but its effects on the arm of the corpse surprised me; for the arm, hand and fingers, which were extended, were, as if convulsively bent at every joint: the discharge of the phial was repeated, but with much less effect; and by a third discharge, scarcely any sensible effects were produced; nor after this could any alteration be discovered, although several much stronger charges were made to pass through the arm. The quantity of irritability, therefore, which had been so strongly retained for upwards of three hours after death was, by three discharges of the phial, exhausted in as many minutes.”

Here, Parkinson is not exactly treating a patient; he is attempting to reanimate a dead, but recently-alive, person using electricity.

Parkinson has already intimated, by specifying the boy’s prolonged immersion time, how unlikely he was to be revivable. The attempt is, then, in part a therapeutic trial, instituted in a last-ditch effort to save him. But because he clearly suspects that the immersion was too long for attempted reanimation to succeed, it is also an observational experiment, another small *experimentum*, performed on dead tissue, to see what electricity does to a body that the spark of life, however that may be conceptualized, has

left.³¹ It is the rapid decay of the effect of electrical stimuli on the inanimate arm that strikes him as important enough to convey to his readers.

Parkinson demurs here about why he happened to have an electrical machine in his pocket as he performed his medical rounds, as if this were ordinary and nothing to comment further about. It was in fact not uncommon for practitioners of various kinds to equip themselves with electrical machines; these machines were frequently used therapeutically, for all sorts of conditions.³² Parkinson's use of electrical apparatus may have been related to another aspect of his work, that with the Humane Society of London. Electrical machines were part of the resuscitative equipment used by the various Humane Societies, voluntary societies organized for the purpose of reviving the nearly- or apparently-dead, that had been organized in many cities, especially port cities where drownings were frequent. Their resuscitative repertoire included electrical stimulation.³³

Parkinson's father John was an early and active participant in the Humane Society of London (founded in 1774), acting as one of the so-called "assistants" assigned to

³¹ On the nature of the spark of life as John Hunter conceived it, see Parkinson, *Hunterian Reminiscences*, passim, and John Hunter, "Proposals for the Recovery of People Apparently Drowned," *Philosophical Transaction of the Royal Society* 1776; vol. lxvi, pp. 412-25.

³² These machines, which were analogous to batteries, were basically apparatus for storing, and then releasing, electrical charges. They were tried in the treatment of many disorders, including tetanus, rheumatism, and palsies (sudden or chronic paralyses), with varying reputations for success. For an example of a practitioner's therapeutic use of an electrical apparatus, see Jonathan Barry, "Piety and the Patient: Medicine and Religion in Eighteenth Century Bristol," in Roy Porter, ed., *Patients and Practitioners: Lay Perceptions of Medicine in Pre-Industrial Society* (Cambridge: Cambridge University Press, 1985), pp. 145-75. Barry recounts that William Dyer organized the Bristol 'Society for the Rescue of Persons Apparently Drowned' and that "Dyer's most distinctive practice was in his use of electrical therapy, and here his fame extended beyond family and friends . . . Most of his patients were poor, but he also treated the families of several local parsons, an apothecary and the wife of a Bristol M.P. . . . Dyer's own use of electricity started in 1760, when he obtained his machine from London," pp. 153-4.

³³ See Michael Brian Schiffer, *Draw the Lighting Down: Benjamin Franklin and Electrical Technology in the Age of the Enlightenment* (Berkeley, Los Angeles and London: University of California Press, 2003), pp. 156-60, in which Schiffer describes these social organizations "whose mission was to revive people who had drowned, been hanged or suffocated, had fallen or drunk to excess," p. 156. See also Delbourgo, *A Most Amazing Scene of Wonders*, pp. 200-5, about the formation and activity of the Humane Societies, including the London Humane Society in 1774. At this time, electricity was seen as holding great promise for restoring life, an endeavor that occupied many prominent men, including John Hunter, John Fothergill, William Cullen, and Erasmus Darwin, p. 223.

particular locations, where they could be called on at any time to attempt resuscitation, using methods specified by the Society, on persons found apparently dead after immersion in water, suffocation, falls, or electrocution. John Parkinson was assigned the New River area.³⁴ On November 5, 1777, he wrote a letter describing an attempted resuscitation that he performed with his son James:

"It is with the utmost satisfaction I can inform you of a case in which I have been able (by the means recommended by your truly Humane Society) to restore life to one, who, before the Institution of your Society, would have been numbered with the dead.

About seven o'clock in the evening of *Tuesday, (October 28)* I was sent for to the assistance of *Bryan Maxey*, aged 29 years, who (as the messenger informed me) had hanged himself. I immediately, with my son, hastened to the place (about a quarter of a mile distant from my house[]). We there found the poor fellow, to all outward appearances dead: the jaw so fixed, as to require the utmost force to move it; a coldness had overspread the limbs, &c. &c. excepting a very small degree of warmth at the pit of the stomach. A woman, who had some imperfect idea of the means you recommend, and the rewards you offer, endeavored, and with some success, to increase the warmth, by rubbing the pit of the stomach with flannel. This small degree of heat, and a tremulous kind of motion in the artery at the wrist, not to be perceived, but with the utmost earnestness of attention, were the only encouraging symptoms. I should here observe, that a neighbor, who practices bleeding, had taken about eight ounces of blood from the arm before we came. We were soon joined by *Mr. Dearne of Shoreditch*, who very humanely assisted us in our endeavors, which happily proved successful . . ."³⁵

John Parkinson's account neatly functions on two levels here. On the one hand, it portrays the procedure for resuscitation as ordinary and even routinized, reliably successful when performed properly in the right situations. But underlying the recounting of methodical procedure is the sense of wonder: that it is possible for an ordinary

³⁴ See William Hawes, *Annual Report, Society for the Recovery of Persons Apparently Drowned. Instituted M. DCC. LXXIV* (London: The Royal Humane Society, 1799), which includes John Parkinson in its 5-page "List of the Directors," pp. 15-19. This publication also specifies the reasons and methods for attempting resuscitation, pp. 3-14. See also Shirley Roberts, *James Parkinson (1755-1824)* (London: The Royal Society of Medicine Press, 1977), p. 12.

³⁵ John Parkinson, "Case CLIV. No. 41, To James Horsfall, esq.," in Hawes, *Annual Report*, pp. 41-3, pp. 41-2. An abridged version of this report, with slightly different wording, was printed in the *Transactions of the Royal Humane Society* 1795; 1: 161-3.

surgeon-apothecary to bring back to life someone who “would have been numbered with the dead.”

In 1777, James Parkinson was awarded the Society’s Silver Medal for successfully resuscitating Mr. Maxey. The Silver Medal was granted for arduous rescues or those undertaken under dangerous circumstances.³⁶ But as his father’s letter shows, the resuscitation was something of a community effort, with the woman providing warmth, another neighbor letting blood, and Mr. Dearne joining the Parkinsons in their efforts. All seemed familiar with the methods of resuscitation, but interestingly, only the woman is described as possibly being motivated by the monetary reward offered by the Humane Society for each person saved.

“... [F]or having persisted in the means you [the Humane Society] recommend, inflation of the lungs, alternately raising and distressing the chest, friction, &c. for rather more than *a quarter of an hour* ; be perceived the motion of the artery at the wrist increased to a distinct, though yet almost *imperceptible* pulsation; and no also we perceived the pupil, which had hitherto been exceedingly dilated, shew a tendency to contract. After *forty* minutes, or rather more, he fetched a deep sigh, which was followed by a considerable increase in the force of the pulse . . . In about an hour the natural breathing took place; and in about *half an hour* more (being an *hour and an half* after we began our endeavors) sense returned. He then complained of an excessive pain in the head. He had some warm brandy and water given him, and a purging ptisan sent, of which he was to take a sufficient quantity to procure him one stool.”³⁷

Mr. Maxey was observed and treated for four days following his recovery; the only lasting effects of his ordeal were “a numbness in the right side of the head and a dimness of sight.” No electrical apparatus is mentioned in the reports of these attempts, but Parkinson’s connection with the Humane Society familiarized him with their use.

³⁶ Medals were awarded by the Society to resuscitators who accepted no pecuniary reward for their work. It is unclear from the Society’s reports why James Parkinson rather than his father was granted the medal.

³⁷ John Parkinson, “Case CLIV,” p. 42. A ptisan is a tea.

Involvement with the Humane Society had benefits other than those of simply resuscitating people; the work of the Society neatly combined the furthering of knowledge about nature and medicine, specifically about electricity and the bodily nature of death and life, with philanthropic activity. This involvement also fostered relationships with some of the more prominent medical and surgical thinkers in London, John Hunter and John Coakley Lettsom among them, who were engaged in these scientific and humane pursuits. The fact of carrying an electrical apparatus also conveyed an aspect of being a man of science; such apparatuses were in a sense emblematic of belonging to an intellectual community investigating the nature of electrical forces, electrical fluids, and their connection to life.³⁸ The machine's presence, and its description in this article, serves to position Parkinson as *au courant* about science.³⁹ Early in his description of the men hit by lightning, he had demonstrated his familiarity with electrical apparatus when he compared the smell of the lightning-struck house to that of a battery. Later, discussing the drowned youth, he demonstrated that he knew how to employ such batteries as well.

This attempt at reviving the drowned youth having failed, Parkinson does not discuss his case further. He proceeds to describe the case of the fourth man, under the

³⁸ Such electrical machines may also have been a part of Parkinson's early work with chemistry and the study of minerals in the 1780s; he was later known to use electricity in analytic procedures. J. C. Thackray, "James Parkinson's 'Organic Remains of a Former World' (1804-1811)," *Journal of the Society for the Bibliography of Natural History*, 1976, 7: 451-466, p. 451. Parkinson was also listed as a subscriber (or a purchaser in advance) for a book about electricity: Abraham Bennet's *New Experiments on Electricity, Wherein the Causes of Thunder and Lightning as Well as the Constant State of Positive or Negative Electricity in the Air or Clouds, Are Explained; with Experiments on Clouds of Powders and Vapours Artificially Diffused in the Air. Also a Description of a Doubler of Electricity, and of the Most Sensible Electrometer Yet Constructed. With Other New Experiments and Discoveries in the Science* (Derby: Printed by John Drewry, 1789). See F. J. G. Robinson and P. J. Wallis, *Book Subscription Lists: A Revised Guide* (Newcastle Upon Tyne: Harold Hill & Son, Ltd., for the Book Subscriptions List Project 1975), p. 45.

³⁹ On the relationship between the medical and the scientific uses of electrical apparatus, see Charlotte Sleight, "Life, Death and Galvanism," *Studies in the History and Philosophy of the Biological and Biomedical Sciences* 1998; 29C(2): 219-248; and Marco Bresadola, "Early Galvanism as Technique and Medical Practice," in Paola Bertucci and Giuliano Pancaldi, eds., *Electric Bodies: Episodes in the History of Medical Electricity* (Bologna: Alma Mater Studiorum, Università di Bologna, 2001), pp. 157-179.

heading “Case.”⁴⁰ This man, “of about forty-five years of age,” consulted Parkinson about a “trifling hurt on his shin, observing, that he had been but too liable to such accidents, since he had had the misfortune to lose his sight.” Parkinson asked him what had caused his blindness.

“[A]bout seven months before, he had been sent one stormy night, by his master, a farmer at Edmonton, to house some cattle; and that whilst he was in the field, a slash of lightning, of amazing brightness, came across his face, and at the same instant he heard a clap of thunder; that he was struck down, and unable to rise for some seconds, but was not deprived of his sense in the least; that he immediately felt excessive pain in his eyes, which soon went off; but that he had ever since been entirely deprived of his sight.”⁴¹

Parkinson was intrigued: “Never having had an opportunity of examining the eyes of any one, who had been said to have been stricken blind by lightning, I desired him to let me examine his eyes, to which he readily consented.”

“The eyelids were very closely shut, and had rather the appearance of a flat than a convex surface, which induced me to expect that I should find the eyes themselves considerably lessened in their dimensions, if not totally destroyed. After several unsuccessful attempts to force open the eyelids, I was so entirely foiled, that I should have desisted, had not the man himself anxiously pressed me to make another trial; I therefore renewed my endeavors, and at length forced them so far that I could distinctly perceive the eye still retained its natural figure, and that the cornea was still bright and transparent, but the pupil was exceedingly contracted. The moment the eyes were raised from before the pupil, he cried out in ecstasy that he saw the light: but added, that it gave him such an acute pain that he could not bear it any longer and begged that the eyelids might be suffered to close; he had seen, he said, a blaze of light, as bright as that which had first destroyed his sight.”⁴²

This case differs from the other three in that the patient’s narrative is essential for Parkinson’s story; the man was struck by lightning months before his visit to Parkinson and had been blind since. It is only through the man’s narrative that the presenting

⁴⁰ This fourth case is discussed in Parkinson, “Lightning,” pp. 503-7.

⁴¹ Parkinson, “Lightning,” pp. 503-4.

⁴² Parkinson, “Lightning,” pp. 504-5.

complaint, a knock on the shin, is connected to blindness and ultimately to a lightning strike at all.

The complaint that actually prompted the consultation, a trifling injury of the shin, is quickly dispensed with in Parkinson's case history, though it may have been evaluated and treated. The injured shin served to bring the patient to him, but it receives no more attention, and Parkinson shifts his own focus to the patient's eyes, though the patient has not requested that they be examined or treated. For a moment, then, the patient is not controlling how the purpose for the visit is defined, or even how the content of the narrative is incorporated into the encounter. He regains control, however, when he convinces Parkinson, who feels "foiled" and reluctant to continue attempting to pry the eyelids open, that he should keep trying: he has seen light again, and he wants to continue in spite of the pain.⁴³ The patient, it turns out, is right, and the perseverance ultimately gradually restores his sight.

"After resting a few minutes, he intreated me to force them open again, that he might once more see the light; I therefore repeated my attempts, and with still greater success, as I now opened them wider, with less force, than I had before been obliged to employ. The contraction of the eyelids, which immediately succeeded, seemed also to be less violent: but he could not yet distinguish any particular object, owing to the anguish he felt as soon as the light darted on the retina; nor was it until this troublesome operation had been repeated seven or eight times, that he could distinguish the frame of the window. The contraction of

⁴³ There is a rich peri- and post-Foucauldian historiography exploring the relative contributions to the diagnostic process, and to the choice of therapy, of what the patient said and wanted, as opposed to what the doctor saw and thought; about the degree of objectification of the patient by the "clinical gaze;" and about the importance of understanding historical events as they were experienced by the people "below." See, for example, N. Jewson, "The Disappearance of the Sick-Man from Medical Cosmology, 1770–1870," *Sociology* 1976, 10, 225–44; N. Jewson, "Medical Knowledge and the Patronage System in Eighteenth-Century England," *Sociology* 1974, 8: 369–85; Roy Porter, "The Patient's View: Doing Medical History from Below," *Theory and Society* 1985, 14(2): 175–98; and Mary Fissell, "The Disappearance of the Patient's Narrative and the Invention of Hospital Medicine," in Roger French and Andrew Wear, eds., *British Medicine in the Age of Reform* (London and New York: Routledge, 1991), pp. 92–109. In the current case, it is not so much the patient's narrative as the patient's agency that is at issue. See Flurin Condrau, "The Patient's View Meets the Clinical Gaze," *Social History of Medicine* 2007, 20(3): 525–40. Condrau posits that in looking at the patient from below, it was agency as much as narrative that Porter was trying to unearth.

the eyelids being much lessened, and a slight inflammation of each eye having come on, we, for that time, desisted from any further efforts. The eyes were ordered to be constantly bathed with cold water, and as the violence of the spasm was evidently lessened, by the application of external force, he was recommended to force them open two or three times in the remaining part of that day.”⁴⁴

By the following day, the inflammation had subsided, and the vision was now “tolerably distinct; the disposition in the eyelids to contract” had decreased; in another two or three days, he had “recovered free motion of the eyelids, and excepting an excessive sensibility of the retina, which still remained, was without complaint.” A previously blind man could now see.

Once again here, Parkinson interposes his interpretation, based on anatomic and physiologic understanding, into the case. He describes not the patient’s pain when his eyes are open in the light, but rather “a sensibility of the retina”—not quite the patient’s experience, but Parkinson’s own physiologic understanding of it, seamlessly embedded in his description. Parkinson is recording what he has observed, but he is also speculating about causes and effects. He adds here a theoretical paragraph about the fourth man, in which he explains what he thinks induced the man’s blindness: “It seems as if the excessive brightness and sudden flash of the lightning, had brought on so strong a contraction of the *orbiculares palpebrarum*, that it ended in a spasm of those muscles, which spasm continued until overcome by external force.”⁴⁵ It was not the faculty of seeing, but a muscle spasm of the eyelids that induced this man’s blindness.

Parkinson has already interpreted the other three cases, and he ends his description here. But it is worth looking further at what he accomplishes with this case series: why he has grouped the cases together and what he wants the grouping to convey.

⁴⁴ Parkinson, “Lightning,” pp. 505-6.

⁴⁵ The *orbiculares palpebrarum* are the muscles of the eyelids.

These four men together don't immediately appear to fit into a single category: though three of the four cases involve victims of lightning, the first two, whom Parkinson observed immediately after severe lightning injury, are very different from the blinded man, whose presenting complaint does not even relate directly to lightning—whom, in fact, Parkinson had to probe for the connection to lightning, a connection that would have remained obscure without the patient's narrative and that explains his inclusion here.

The third case was not a lightning victim at all, and he was dead when Parkinson encountered him. Thus, strictly speaking, Parkinson could not treat him. Nor could he report the effects of treatment, according to the standard format of a case history. What the third man shared with the three other men was that his body had been entered and changed in an observable way by an external electrical force. Like the other men, as well as the house in Crabtree-Row, and the buttons and buckles, he was observed by Parkinson after being penetrated and transformed by electricity. It was a theoretical connection among types of electricity that united these men, and even these inanimate objects, in Parkinson's mind, allowing him to translate what would ordinarily have been a case history first into a case series and then into a discussion reaching into other domains of science altogether, the place where the medical study of the body and electricity meets chemistry and physics and even meteorology.

Parkinson did not have to be over-explicit about the awesome power of electricity, as it would have been familiar to his readers and colleagues, as would the conceptual connection between the electrical fluid that animated the human body and manifestations of electricity, in the guise of lightning and electrical phials, outside the body.⁴⁶ But

⁴⁶ About the connections among animation, the electrical fluid, and the nervous system, see Marco Bresadola, "Animal Electricity at the End of the Eighteenth Century: The Many Facets of a Great Scientific

electricity was still, in its biological nature and effects, mysterious and frightening, a fascinating and paradoxical force. It could strike healthy people and leave them insensate, blackened, and pulseless, apparently dead when they were really alive, and it could render the truly dead twitchy and reactive, apparently alive when they were really dead. In a way that harkens oddly to what Parkinson would describe about the shaking palsy, electricity could both curtail and induce movement, paralyzing the living who had been able to move, and provoking movement in the dead who could not move without it.

These cases necessarily lent themselves particularly to a natural historical kind of description and analysis. At a time when the disciplinary boundaries between medicine and other sciences, especially natural history, were still more porous than they later became, the information provided by these cases about natural phenomena and the relationships between human bodies and the natural world occupied a conceptual space that was larger than medicine, and Parkinson's audience would not have been exclusively medical. But much of his medical audience would have been versed in the other domains of science, contributing to scientific undertakings outside medicine and simultaneously absorbing knowledge from them.

Parkinson's goal with this report was broader than simply furthering knowledge about how to treat a certain kind of injury, though he certainly intended and included that. In the introduction to the paper, he makes clear his intended scope; he wants to further understanding about the effects of electricity on the human body:

“Although the circumstances related in the following paper, may not merit attention, either from their novelty or curiosity, yet it is hoped they will not be thought entirely useless and uninteresting, as, perhaps, by being compared with other accounts of similar accidents, they may afford some small assistance in the

Controversy,” *Journal of the History of the Neurosciences* 2008; 17: 18-32; Delbourgo, *A Most Amazing Scene of Wonder*; and Schiffer, *Draw the Lighting Down*.

investigation of the nature of the electrical fluid, and of its mode of acting upon the animal system.”⁴⁷

By carefully recording the effects he observed on the outsides of these men’s bodies, Parkinson is attempting to infer what electricity has done to the interior, including what happens at the boundaries between different kinds of bodily substances. His conceptual framework for interpreting and communicating these effects, as he shows in this introduction, touches on meteorology, natural history, and chemistry as well as medicine. His presentation of his findings, first orally to the Medical Society, and then in print to a more geographically dispersed intellectual community, serves to make new knowledge of his observations, across disciplines.

Parkinson was an avid student of the natural world, and he published this case series at a time when many medical practitioners were also natural historians. His description of the men hit by lightning, the melted buttons on their clothes, and the damage wrought in the building remind the reader that the techniques of observation that he used on the men’s bodies was related to, even in some ways the same as, the ones he used for other kinds of natural historical study.⁴⁸ The discipline of medicine and surgery thus provided only one of the spaces in which he had trained his senses. He also did this by studying the forms of fossils and by studying comparative anatomy in the laboratory-

⁴⁷ Parkinson, “Lightning,” pp. 493-4.

⁴⁸ On the longstanding connection between the practice of medicine and the practice of natural history, and the reasons for this connection, see Harold J. Cook, “Physicians and Natural History,” in Jardine, Secord, and Spary, eds., *Cultures of Natural History*, pp. 91-105. Cook notes the interest expressed by physicians generally in the information provided by the senses, in the tradition of Hippocrates; in information from nature that would improve their treatment of disease, whence their interest in plants and sometimes minerals as potential remedies; and in the analysis of structure by dissection (of both plants and animals). On the earlier development of methods for observing and for classifying and recording observations, see Brian W. Ogilvie, *The Science of Describing: Natural History in Renaissance Europe* (Chicago: The University of Chicago Press, 2006). See also, Pomata “Sharing Cases,” p. 222, where she notes that the networks of the medical *observationes* often overlap with those of natural history, with sixteenth- and seventeenth-century records of rare cases being valued and collected similarly to the way specimens of rare plants and animals were collected, with their diffusion often following “the same route through the same epistolary exchanges.”

like space John Hunter had established. And he consolidated both of these by drawing what he had observed.

His grounding in all three of these comes through his case study, and all three were essential for Parkinson ultimately to discern the nuances of form and movement. His ability discern these nuances of form and movement, trained in these three ways, probably helped him, later in his life, to be able to characterize the shaking palsy, a disease that was, and in fact remains, diagnosed by observation. Looking more in depth at each of these domains may therefore provide some clues about how he came, later, to see the shaking palsy.

The first way Parkinson schooled his senses was through his medical and surgical training. In medicine, the observational task of learning to read the signs of the body was a complex process, with a tradition, like that of the case report, harking back at least to the Hippocratic corpus. Galen had specified that there is no disease without internal dysfunction, and that it was the physician's task to locate this dysfunction in order to come to a correct diagnosis.⁴⁹ But the resulting prescriptive and somewhat codified method for observing the patient was, like so much else, systemized by Galen, and it somewhat rigidly guided physicians' practice for almost two millennia.⁵⁰ Though all five senses were theoretically available for observing the patient, sight predominated in the long Galenic tradition. Smell and taste were used relatively undifferentiatedly, as in tasting sweat for acidity or noting fetid or unpleasant smells, and hearing was useful mainly for detecting clues in a patient's voice. Touch was used more than taste, smell or hearing, but still in a limited way, in the form of scripted modes of palpation: for feeling

⁴⁹ This accorded neatly with John Hunter's physiologic and functional view of disease.

⁵⁰ William F. Bynum and Roy Porter, "Introduction," in Bynum and Porter, eds., *Medicine and the Five Senses*, pp. 1-6.

the pulse and temperature, and for palpating the body, particularly the abdomen. Little in Galen's works shows it being used for other purposes.⁵¹

Until recently, historical studies about the physical examination of the patient have suggested that, in keeping with a gentlemanly status that involved eschewing work with one's hands, eighteenth century physicians mostly did not touch the patients they diagnosed, except for sometimes feeling the pulse and temperature.⁵² To the extent that physicians examined patients, according to this view, the process was more ritualized than exploratory.⁵³ This view has, however, been challenged and complicated in more recent historical scholarship. In his essay on Giovanni Battista Morgagni and the physical examination, Malcolm Nicolson used Morgagni's *De Sedibus*, and to a lesser degree his *Consilia*, to demonstrate that eighteenth-century physicians did in some circumstances perform quite detailed physical examinations on patients. Morgagni, a famed academic

⁵¹ Vivian Nutton, "Galen at the Bedside: The Methods of a Medical Detective," in Bynum and Porter, eds., *Medicine and the Five Senses*, pp. 7-16, especially pp. 11-13.

⁵² See, for example, Stanley Joel Reiser, "Examination of the Patient in the Seventeenth and Eighteenth Centuries," *Medicine and the Rise of Technology* (Cambridge: Cambridge University Press, 1978), pp. 1-22. Reiser ultimately differentiates physicians from surgeons here, noting that unlike physicians, surgeons, in keeping with their lower status, did place their hands on patients. But he mistakenly classes Morgagni, a physician, with those who did not examine, stating that Morgagni did not take the step of advocating a physical examination of the patient and that he "continued to rely chiefly on the patient's narrative, and on a passive observation of symptoms," p. 19. This was not the case, but this idea allowed Reiser to divide those who performed more than perfunctory physical examination from those who did not, strictly along professional-training lines. Charles Newman's work in the 1950s and 60s, in which he examined hospital records and case notes looking for evidence of physical examination by physicians, also suggests that physicians in Britain did not physically examine patients until roughly the third decade of the nineteenth century; see "Diagnostic Investigation Before Laënnec," *Medical History* 1960; 4: 322-9, and "Physical Signs in the London Hospitals: A Chapter in the History of the Introduction of the Physical Examination," *Medical History* 1958; 2: 195-201. See also, Roy Porter, "The Rise of the Physical Examination," in Bynum and Porter, eds., *Medicine and the Five Senses*, pp. 179-97, especially pp. 182-3. Here Porter endorses the view that before 1800, physicians' use of physical examination techniques was minimal and consisted mostly of listening, smelling for putrefaction, and feeling the pulse in a qualitative way.

⁵³ Nicolson notes, for example, that the clinical lectures of the eighteenth century physician William Cullen "provide no direct evidence that in the course of his hospital practice, he ever touched the bodies of his patients," and that in all of Cullen's lengthy *First Lines of the Practice Physic*, there are only two examples of physical examination. Malcolm Nicolson, "Giovanni Battista Morgagni and Eighteenth-Century Physical Examination," in Christopher Lawrence, ed., *Medical Theory, Surgical Practice: Studies in the History of Surgery* (London and New York: Routledge, 1992), pp. 101-134, pp. 106-7.

physician who was highly attentive to his reputation and standing, and thus to his dignity, routinely and rigorously examined his patients' bodies, probing orifices, palpating areas other than the abdomen, inspecting the body unclothed, and auscultating and percussing freely; he mentions that his teacher Valsalva did so as well.⁵⁴

The training and practice of surgeons had always been different from that of physicians in this respect, even as the distinctions between them were beginning to blur. Examining the skin, palpating the body, and probing wounds and orifices had always been a part of what surgeons did. Following up on Owsei Temkin's work about the incorporation of surgical concepts into internal medicine, Nicolson argues that the extent to which physicians' practice incorporated physical examination depended on factors other than the possession of a medical degree, namely traditions of local practice, expectations of patients, the scope of the particular practitioners' knowledge and training, and, in any particular social milieu, the degree to which surgery had come into social prominence and to which surgeons interacted with physicians in practice.⁵⁵ The less hierarchical the relationship between physicians and surgeons, the more "surgical" practices would find their way into physicians' practice; touching the body was paramount among these surgical practices.⁵⁶

⁵⁴ Before the introduction of the stethoscope in the early nineteenth century, auscultation, or listening directly to the chest, required the listener to place an ear directly on the patient's body.

⁵⁵ Nicolson notes that in the Bologna and Padua of Morgagni's day, surgeons could have considerable social prominence and that Morgagni described several men, including Valsalva, as being both surgeons and physicians, thereby downplaying the social distinctions between the groups. See also, Owsei Temkin, "The Role of Surgery" *Bulletin of the History of Medicine* 1951, 25: 248-59; and Weisser, "Boils, Pushes and Wheals."

⁵⁶ For cleansing wounds, treating skin ailments, setting fractures and the like, verbally negotiated diagnoses and internal remedies simply did not suffice. As for patients' modesty explaining why physicians did not perform examinations, Nicolson points out that the frequency with which surgeons described and reported quite invasive practices, including urinary catheterization, internal vaginal and rectal examination, and the probing of hernias, gives the lie to the widely-held idea of patients as unwilling to be examined because of social strictures or modesty. Pain and fear tend to moderate modesty.

It is important to be clear about the professional politics of touch, because some recent scholarship about Parkinson suggests that he did not examine patients. Roy Porter, inquiring rhetorically about why Parkinson later missed an important sign of the shaking palsy, asked,

“Why was this? It is probably because Parkinson probably did not touch his patients. And why was that? It would have been because physical examinations were rather rare in those days. For one crucial divide between the ‘pre-modern’ and the ‘modern’ medical era is that traditional physicians did not routinely undertake systematic physical examinations . . . Prudishness and professional dignity probably constrained physical examinations, but by and large the reason why tradition physicians did not touch their patients was because they did not think much could be learned in that way.”⁵⁷

Parkinson was, of course, not a traditional physician, and he certainly did perform physical examinations. As is clear from reading his medical writings, he thought quite a bit could be learned from examining patients. Not only did Parkinson examine living bodies; he also probed the bodies of the wounded and dead, performed autopsies on people who had died violently, and testified about his findings in trials at the Old Bailey.⁵⁸

⁵⁷ Roy Porter, “Parkinson’s Disease (Paralysis Agitans): Social Section,” in German E. Berrios and Roy Porter, eds., *A History of Clinical Psychiatry* (New York: New York University Press, 1995), pp. 113-122, p. 115. Porter’s opinions about things like this, even when they are as inaccurate as this conclusion, need to be addressed because of his enormous influence as a medical historian.

⁵⁸ Though I have not seen this aspect of his work or abilities described in any of the works about him that I have read, the Old Bailey records include at least three cases of people dying violent deaths in the Shoreditch area, in which he both performed and interpreted the results of post-mortem examinations. See Tim Hitchcock and Robert Shoemaker, Project Managers, *The Proceedings of the Old Bailey* (www.oldbaileyonline.org), July 1814, trial of Richard Hardy (t18140706—46); September 1818, trial of John Jones (t18180909-35); and October 1821 trial of Daniel Hurley (t18211024-35), all accessed October 23, 2011. The latter two occurred after the publication of the *Essay*. On July 6th, 1814, Parkinson presented his findings at Richard Hardy’s trial for the non-fatal stabbing of William Payne, whom he had cared for during the three weeks following his injury, and whose wound he had clearly probed: “I am a surgeon; I examined Payne’s wound; it was an inch deep, hardly more. It appeared to be a cut, not a stab. It might be done by Payne turning quick round, or by Hardy drawing the knife. Every thing that I saw might have occurred if there was a scuffle between the parties.” Another case was that of a woman who died after engaging in an altercation while inebriated, being hit in the abdomen, and then falling on a pile of bricks, after which she was carried to bed, a doctor was sent for, and she was bled. She died (?three days later) and was examined by Parkinson, who testified at the Old Bailey trial of John Jones, the man who had hit her: “I am a surgeon. On the 2d of July, I examined the body of the deceased, and could observe no external mark

Also corroborating Nicolson's observations about physicians, and contradicting Porter's, is the example of Anthony Fothergill, a rather learned physician, matter-of-factly describing not simply touching a patient, but performing a rectal examination:

“In some of these [dysenteric] inveterate cases a considerable tract of the rectum and larger intestines have, on dissection, been found in a schirrous, sometimes in an ulcerated state, with considerable thickening of the intestinal coats and coarctation in certain parts of the canal. If this sh^d on examination with the finger be found to be the case, the disease will terminate in an incurable marasmus.”⁵⁹

In this practice, as in so many others, physicians differed greatly among themselves.

William Cullen may not have examined patients. Anthony Fothergill most certainly did.

Parkinson was able to write fluently about medical theory, but his training was as a surgeon, and his description of how he examined the men hit by lightning is pertinent. In the context of Park's and Pomata's distinction between different kinds of scientific observation, the somewhat probing (*experimentum*) as opposed to the patiently watchful (*observatio*), it is clear that in his observation of these men, Parkinson did both. The somewhat ritualized parts of the physical examination, such as assessing the quality of the pulse and temperature, have a kind of closed-endedness about them. Such maneuvers are performed in order to answer a particular scripted question, not quite so closed-ended

of violence; but upon opening the body, I discovered that the bladder had been ruptured and the urine effused through the bowels, which were in a high degree of inflammation, in consequence of it. [Q. Are you able to say what caused the rupture—A.] I am not. I believe it was from external violence, either a blow or fall might have produced it. I think it right to say, that when the bladder is so highly extended a much less degree of violence might have occasioned the injury than could be supposed. Her death was in consequence of the rupture of the bladder; her falling on an unequal surface, with her bladder in that state, is very likely of itself to have caused the mischief.”

⁵⁹ Christopher Lawrence, “Take Time by the Forelock”: *The Letters of Anthony Fothergill to James Woodforde 1789-1813* (London: Wellcome Institute for the History of Medicine, 1997), p. 66, letter 54, from Anthony Fothergill to James Woodforde, January 25, 1797. Elsewhere Fothergill alludes to what one finds when one performs an abdominal examination, differentiating the impossible-to-reach posterior lobe of the liver from the parts of the liver that one can feel: “. . . [H]owever we may hope, in time, to dislodge [biliary concretions] and that all may do well, provided that the organic structure of the liver be not irreparably injured, particularly the posterior part of the lobe which eludes the touch.” p. 81, letter 71, November 9, 1800.

as a binary, yes-no question like, “Is the pulse palpable?” or “Is the pulse weak?” but closed-ended in its range of possible answers nonetheless.

While he duly observed and reported the patient’s color and general aspect, the quality of his pulse, temperature, and respirations, and the texture and tension of the abdomen, Parkinson’s examination went farther than this standard, almost Galenic, examination, demonstrating simultaneously a quality of wonder and a willingness to keep exploring, investigating questions that were open-ended and that would not, at least in a conventional way, dictate therapy. In some places, he appears to explore and observe not so much goal-directedly as for their own sake. He attempts to describe things that he seems not to have seen or read about before and for which he can call on no familiar observational or descriptive practice: determining what is going on with the seemingly flattened eyeballs of a patient blinded by lightning, for example, or noting the perplexing changes of color in the branching lightning marks when “friction is used upon” an extremity. The sense of unfamiliarity comes through the writing, evenhanded though it is. He is recording medical cases, noting unusual changes in familiar parts of the body, but he is also recording something very strange that Nature did and that he has not seen before. He is attempting to describe pathology of the body while elucidating some things about the nature of electricity and its meteorological manifestation, lightning. But he is also witnessing a marvel.

No particular answer is anticipated when one observes this way, and the consequent openness to new phenomena may ultimately require a new or expanded vocabulary when the time comes to categorize the new findings or communicate them to others. For this kind of observation, and for the need to adjust and create language to

accommodate what he was seeing and thinking, Parkinson had the example of what Hunter did in his lectures and demonstrations. The struggle is to find ways to order and classify what are, the first time one encounters them, apparently unique phenomena. If an observer neglects to record, or at least mentally to file, those early seemingly unique observations, there is no way to recognize or remember them the next time one encounters something similar and to recognize that one has seen the thing before.

It is probably not coincidence that Parkinson's report of the men hit by lightning followed so closely after his training with Hunter. Hunter's comparative anatomies, demonstrating spectra of graduated forms, could appear dynamic, the lacunae filled in by the observer's imagination into a smooth transition of forms. Hunter taught his students to think about animal and human physiology (the animal oeconomy) and disease (the animal dysoeconomy, in a sense) and the structures in animals and human beings in a similar functional, physiological kind of way. His model of disease, also implying a spectrum, or different degrees of dysfunction or severity along a continuum, accommodated the intellectual model of a kind of case series that could allow for individual variation without that variation having to be understood in terms of individual constitution.

Linking the cases in Parkinson's article about lightning is a process, a way of thinking, embodying Hunter's approach to observation. Rather than using the classic single-case format, it stretches knowledge by using a particular kind of case series of the form, also stretching the form itself to accommodate cases that look different and share only an inciting process. Parkinson's case series does not examine instances of similar manifestations, or similar disease, in different people and then try to trace the cause,

which was the usual pattern at the time with grouped cases. Rather, it examines what a process or force, in this case electricity, does to people in different situations, when it is “administered” differently. In this his account diverges from other accounts of lightning strikes that are found in the contemporary literature, especially in the *Transactions of the Humane Society* and *The Philosophical Transactions of the Royal Society*. Their cases tend to describe, in great detail, the effects of a single bolt, but not to generalize or abstract further. It also diverges in this respect from the other, mostly single, case reports that were published in the *Memoirs of the Medical Society of London*, next to his own.⁶⁰

Training with Hunter may have helped Parkinson to see not only dysfunction or disease, but also development and shape, or the nuances of form of the same organ in different species, for example, along a spectrum as well. Perhaps the mental ability to see phenomena along a spectrum, as opposed to merely discretely-- that is, to see phenomena in terms of a continuum rather than, or in addition to, seeing them as fixed entities-- may foster an ability to see mobility in form.

The openness to observing the unfamiliar that Parkinson demonstrated in the article about lightning, fostered by the painstaking work he did with fossils, may represent a set of observational and recording practices that ultimately allowed him to register the previously unfamiliar and to classify it provisionally in his memory until he

⁶⁰ The single-case report was the commonest format for articles in the early volumes of the *Memoirs of the London Medical Society*. In the first volume, published in 1787, there were twenty-one single-case reports, compared to five reports of more than one case of any particular conditions. Of those five, one, reported by John Coakley Lettsom, described two cases of palpitations of the heart, followed by autopsies; one reported two cases of hydrocephalus, one reported two cases of bronchocele, one reported cases of hydrophobia, and one reported interesting surgical cases. Of the five, none reported different *kinds* of cases and generalized about them. In the second volume of the same periodical, published in 1789, and in which Parkinson’s own article appears, appear ten single-case reports and only one report, also by John Coakley Lettsom, that describes more than one case, of renal hydatids. In this second volume are several general medical articles, addressing topics including hydrophobia, schirrho-contracted recta, powders of camphor, *Ascaris Lumbricoides* (worms), jaundice, and arsenic.

encountered other similar phenomena to group together. Parkinson once wrote that he had always been interested in natural history, something one biographer connects to the frequent unearthing of fossils from the quarry near his childhood home in Hoxton.⁶¹ It was an interest that would have been reinforced by exposure to Hunter's fossil collection and his demonstrations of comparative anatomy.

During his lifetime, Parkinson was famous for his work in natural history rather than medicine. He studied, collected, drew, and located specimens; he was also involved in various intellectual communities of natural historians, who exchanged not only ideas but fossils, corresponding with fellow enthusiasts, purchasing specimens both locally and at a distance, and trading specimens with Lord Bute and Gideon Mantell.⁶² He participated in learned societies, including being a founding member of the Geological Society. He did some fieldwork; A. D. Morris describes him going out with his geologic hammer, but he apparently did not do much or venture far from home. His focus was more on collecting, ultimately having a fine museum of specimens at his home. It is for

⁶¹ Roberts, *James Parkinson*, p. 5.

⁶² The involvement of physicians and surgeons in geological enterprises and the collecting of fossils was not unusual at this time. See, for example, on the pastime of searching for shells, John Green Crosse's offhand remark in an 1815 entry in his diary, that he "conchologized in a chalk pit with Dr. [Edward] Rigby." Searching for fossil shells was a common enough pursuit that one could make a verb of it. Rigby was a surgeon, and later physician, at Norfolk and Norwich Hospital. V. Mary Crosse, *A Surgeon in the Early Nineteenth Century: The Life and Times of John Green Crosse* (Edinburgh and London: E. & S. Livingstone Ltd., 1968), p. 89. Of the thirteen founding members of the Geological Society of London, four were medical practitioners. Three of them were physicians; Parkinson was the only surgeon-apothecary. Cherry L. E. Lewis, "Doctoring Geology: The Medical Origins of the Geological Society," in L. E. Lewis and S. J. Knell, eds., *The Making of the Geological Society of London* (London: The Geological Society Publishing House, 2009, Geological Society Special Publication 317), pp. 49-92. See also Philip Sloane, "The Gaze of Natural History," pp. 112-151, and Roy Porter, "Medical Science and Human Science in the Enlightenment," pp. 53-87, both in Christopher Fox, Roy Porter, and Robert Woker, eds., *Inventing Human Science: Eighteenth-Century Domains* (Berkeley, Los Angeles, and London: University of California Press, 1995), on the intersecting facets of Enlightenment cultures of science and medicine in Parkinson's time.

this extensive collection, and later for his published works on oryctology, that he became known.⁶³

Noting that there was no good summary work illustrating fossils available in English at the time, and believing that the English public would be interested in learning about them, Parkinson resolved to provide one. This he ultimately did, in two forms, one a summary with a few black-and-white plates, *Outlines of Oryctology*, published in 1822, many years after it was begun, and the other a massive three-volume work, printed on quarto-sized pages, entitled *Organic Remains of a Former World*.⁶⁴ The latter, which was published over seven years at Parkinson's expense, included 1146 pages, 42 plates and about 700 figures. These colored drawings are remarkably beautiful and were famed for their accuracy.⁶⁵ Parkinson did not make large theoretical contributions to natural history, and he is not mentioned even in the indexes of many recent historical works about natural history, but these drawings continued to be republished, from the original copper plates, until about 1850.⁶⁶

⁶³ See R. J. Cleverley and J. Cooper, "James Parkinson (1755-1824): A Significant 18th Century Doctor and Fossil Collector," *Tertiary Research* 1986; 8(4): 133-45, on Parkinson's fossil collection. Parkinson's work in natural history has been described extensively by his biographers and examined critically by J. C. Thackray. Thackray also corrected the manuscript of A. D. Morris's biography of Parkinson, as edited by F. Clifford Rose, and according to Rose, contributed to the section describing "Parkinson as a Paleontologist." Morris, *James Parkinson*, p. v. See also, Roberts, *James Parkinson*, "Mr. Parkinson the Oryctologist," pp. 69-90; Morris, *James Parkinson*, "Mr. Parkinson, the Palaeontologist," pp. 114-30; and Christopher Gardner-Thorpe, "James the Geologist," *James Parkinson, 1755-1824, and a Reprint of The Shaking Palsy by James Parkinson, Originally Published 1817* (Exeter: Department of Neurology, Royal Devon and Exeter Hospital, 1988), pp. 48-63.

⁶⁴ James Parkinson, *Outlines of Oryctology: An Introduction to the Study of Fossil Organic Remains; Especially Those Found in the British Strata: Intended to Aid the Student in his Inquiries Respecting the Nature of Fossils and their Connection with the Formation of the Earth* (London: Nattali, 1822 and (revised) 1840).

⁶⁵ James Parkinson, *Organic Remains of a Former World: An Examination of the Mineralized Remains of the Vegetables and Animals of the Antediluvian World: Generally Termed Extraneous Fossils*, 3 vol. (London: J. Robson, 1804-1811).

⁶⁶ For example, Jardine, Secord, and Spary, eds., *Cultures of Natural History*, or Martin J. S. Rudwick, *The Meaning of Fossils: Episodes in the History of Paleontology* (London: Macdonald, and New York: American Elsevier, Inc., 1972). Interestingly, he does appear in a paleontological context, twice, in Bill

The critical reception of the *Organic Remains* was mixed; its plates and the meticulousness of their drawings were universally admired, as were his summaries of historical thought about natural history, going back to the ancients and based on works in several languages. But he ran into trouble, possibly naively, about the scientific theory underlying his text and especially in his seeming acceptance, particularly in the first volume, of the biblical account of the Flood, thereby embroiling his work in heated contemporary controversies about the origin and age of fossils and perhaps inadvertently aligning himself with catastrophism. He also contributed to the future obsolescence of his own work on plants by consciously declining to use the already-accepted Linnaean taxonomy for plants. As the work progressed from volume I to volume III, however, his acceptance of the great age of fossils and the earth increased, his somewhat retrograde theorizing decreased without completely disappearing, and his attention to taxonomic schemata apparently increased.⁶⁷

J.C. Thackray, examining early and late editions of the works, takes Parkinson to task for not revising the science in later editions of the *Organic Remains*: “why, having taken trouble over grammatical changes, does he not make any changes in the scientific content of what, by 1820, appears a very outdated book?”⁶⁸ The question is valid; it may simply have been a question of the time and extra study such revision would require. But

Bryson’s popular *A Short History of Nearly Everything* (New York: Broadway Books, 2003). A decade after Parkinson’s death, when his son was publishing Parkinson’s notes from John Hunter’s lectures, he described him not in connection with the shaking palsy, but as the author of the *Organic Remains of a Former World*.

⁶⁷ His biographers seem a bit embarrassed by this theorizing, but Thackray discusses its weaknesses and strengths and elsewhere, himself a bit Whiggish here, contextualizes the theoretical aspects of Parkinson’s work: “The three volumes of *Organic Remains* reveal not only the evolution of one man’s ideas, but reflect the progress that geology as a whole was making during the crucial first decade of the century. The jumble of chemistry botany, mineralogy, and biblical scholarship of 1804, reminiscent of so much eighteenth century science, was refined by 1811 to a fairly concise fossil description, at least tinted with stratigraphy, a foretaste of the 1820s when geology was so largely taken up with the ordering of strata by means of fossils.” Thackray, “James Parkinson’s “Organic Remains of a Former World,” p. 457.

⁶⁸ Thackray, “James Parkinson’s “Organic Remains of a Former World,” p. 456.

it also may be that furthering the science of origins was not really what Parkinson was after in composing this book. He himself had admitted his unpreparedness for the task of writing such a book, and there may have been more than rhetorical convention and feigned modesty behind his saying so. But one could also turn Thackray's question around and ask, "what didn't need to be changed?" The answer is, the drawings. Those were done beautifully and precisely, and they would last half a century.

It may have been drawings and the specimens themselves—and especially the ordering of those specimens-- that were important to Parkinson: that his actual goal was both to order these specimens, in part for the benefit of his colleagues working in the field, and to convey their beauty, their context, and even their existence, to a wider public than had access to the more specialized works available in English at that time. Books like this were read and looked at for pleasure, but they also had the function of training the observation of the serious reader, who would view drawings comparatively and establish correspondences between specimens.⁶⁹

Parkinson's work with fossils honed his observational skills in two ways. The first was as a collector, whose intense scrutiny of specimens produced one of the more renowned collections in Britain. His joy in his collections constituted a kind of exuberant connoisseurship that rings through his writing about his specimens. The second was as a classifier and compiler of visual representations of fossils. It is perhaps not coincidental that he opted when possible to include specimens from his own collection rather than

⁶⁹ See Daniela Bleichmar, "Training the Naturalist's Eye in the Eighteenth Century: Perfect Global Visions and Blind Spots," in Cristina Grasseni, ed., *Skilled Visions: Between Apprenticeship and Standards* (New York and Oxford: Berghahn Books, 2007), pp. 166-90, p. 168: "Illustrated books were particularly important to eighteenth-century naturalists, who valued their libraries as much as their specimen collections . . . [B]ooks standardised methods for collecting and collating material and established shared guidelines for observing, describing, naming, classifying and representing. . . [B]ooks helped to define and arbitrate a community of competent and relevant reader-practitioners."

those of others in his books, a fact that induced him to obtain still more and exotic specimens and that united his eye as a natural historian with his eye as a connoisseur.⁷⁰

In *The Hospital Pupil*, Parkinson discussed the importance of drawing specimens, in this case, anatomical specimens, for training the eye:

“[The student] also should, if he has not done it already, acquire the art of short-hand writing and of drawing. The advantages derivable from the former are obvious, nor are those of the latter much less considerable; since, by copying anatomical plates and drawings, he will acquire more quickly, and exactly, the ideas of the form and the situation of parts, and will thereby have the progress of his knowledge in anatomy much accelerated. He will, at the same time, by these exercises in drawing, so far improve himself in his art, as to be enabled to make copies of such curious preparations, or of such diseased parts, as offer appearances so uncommon, or so peculiarly illustrative, as to demand preservation.”⁷¹

Parkinson lived in an age when the ability to sketch was common and the ostensibly quick representation of something with a few broken lines surprisingly scripted; sketching and drawing formed a shared language of visualization and served to train observation.⁷² One comes to know something more intimately by drawing it this way, and

⁷⁰ See Bleichmar, “Training the Naturalist’s Eye,” p. 176, on the relationships among observing, collecting and ordering: “[T]he comparative eyes of the taxonomist found their counterpart in the appraising eyes of the connoisseur. Like naturalists, collectors were expert observers trained to identify objects accurately, distinguishing among very similar ones based on minuscule differences,” and, “[C]ollecting and classifying, the twin obsessions of eighteenth-century natural history, were predicated on the ability of the trained eye to assess, possess and order,” p. 168

⁷¹ James Parkinson, *The Hospital Pupil; Or An Essay Intended to Facilitate the Study of Medicine and Surgery* (London: H. D. Symonds, 1800), p. 44.

⁷² See Richard Sha, *The Visual and Verbal Sketch in British Romanticism* (Philadelphia: University of Pennsylvania Press, 1998), for a discussion of the careful attention to the appearance, in sketches at this time, of having been dashed off, in comparison to detailed and laboriously composed academic paintings, for example. An interesting analogy to this dichotomy was noted by Gianna Pomata, in a discussion of the importance of written genres, comparing the briefer published medical *observations*, and by extension, later case histories, with lengthier and more laboriously composed academic medical tracts. She notes, in a discussion of the aspects of early modern culture that emerge from an overview of its genres, “a new tolerance and indeed almost a preference for the limited, the provisional, the transitional, rather than the final, the conclusive, the systematic in the realm of knowledge. The genres that lean to the lengthy and ponderous, such as the commentary or the treatise, do not disappear, far from it. But next to them we see the emergence of works that announce, already in their title, a frank admission of the unfinished, unpolished, work-in-progress character of the product they carry.” Pomata, “Sharing Cases,” p. 198. Bleichmar notes that, “The naturalist’s observational skills did not belong exclusively in the eye but also in the hand . . . viewing and representing constituted related activities. Naturalists were trained not only to

not just because of the sustained attention that precise drawing requires, though that is part of it. One somehow incorporates the object by drawing it; the praxis of drawing is like acting out the object, or, in this naturalistic enterprise, the category. The requirement of conveying the three-dimensional object realistically, deceptively, tactilely, in a medium of two dimensions requires a kind of mental fluidity as well: an ability to rotate and see mentally, as if from different angles, what is in fact stationary. This is, in a sense, a reading and then representation of gesture.

Parkinson's organizing of the drawings and classification of fossils for his books forced him to discern the nuances between seemingly similar forms even more finely than simple connoisseurship would have. The book's illustrations had to reproduce the minutest differences between similar objects, demonstrating whether specimens differed in any fundamental way or were essentially the same: whether tiny differences in form or color represented individual differences within a species or separate species altogether. Lorraine Daston describes the quality of attention paid by Enlightenment naturalists to the phenomena they studied as pointillist, magnifying, and therefore repetitive.⁷³ It is likely that this process of repeated and concentrated observation of extraordinarily similar specimens intensified Parkinson's faculty for pattern recognition, and for later being able to recognize when he had, or had not, seen something before.

observe but also to draw, and did so often and well—indeed natural history training shared many preoccupations with academic artistic training.” Bleichmar, “Training the Naturalist's Eye,” p. 176.

⁷³ “The peculiar economy of attention cultivated by the Enlightenment naturalists was pointillist, magnifying, and therefore deliberately repetitive. Visually and intellectually, the observer pulverized the object into a mosaic of details, focusing first on one, then another . . . Only the narrowness of focus could sufficiently concentrate attention to the level of intensity required for exact observations,” she says, the beam of focus “so pencil-thin and intense” that it could not be sustained and thus had to be repeated. Lorraine Daston, “The Empire of Observation, 1600-1800,” in Daston and Lunbeck, eds., *The History of Scientific Observation*, pp. 81-113, pp. 99-100.

In September, 1807, Parkinson wrote a letter to the *Gentleman's Magazine* lauding the London Museum for housing “the most complete, collection of British Natural History which has ever yet been formed.” Studying the collection allowed him to make a discovery:

“By the investigations which I had previously made, and from specimens in my own collection, I had ascertained that England alone yielded several species of Encrinites, as I trust I shall shew in the second volume of *Organic remains of a former World*, now in the press. But, by an examination of the series of fossils in this department of the London Museum, as above mentioned, I have gained the knowledge that our own country can boast of yielding at least one additional curious specimen of this animal hitherto I believe unknown, and forming by the length of the arms an intermediate species between the Lily and Plumose Encrinus. The specimen of which I speak, is numbered 924 in the brief catalogue which is delivered at the Museum.”⁷⁴

In this letter, Parkinson very clearly demonstrates the method that almost certainly underlay his formulation, in the different domain of medicine, of the shaking palsy. He begins by alluding to his familiarity with known specimens, in this case with the known world of encrinites. He then describes his recognition of a specimen that did not yet have a place in the classification scheme of encrinites, with which he was also familiar. His repeated exposure to, and observation of, the known species of encrinites allowed him to recognize one he hadn't seen before, and his familiarity with the existing methods for classifying specimens, and with the individual specimens in those classifications, allowed him to recognize that this particular encrinite was not yet represented. It is the same process he describes about the shaking palsy: seeing a pattern of abnormal movement and progression over time that was not represented in the existing classification schemes with which he had made himself familiar.

⁷⁴ James Parkinson, Letter, *The Gentleman's Magazine*, 1807; 72(2): 818. Encrinites are rocks consisting of the fossil forms of crinoids, a category of marine animals that includes stone lilies. Parkinson notes them in volume II of *Organic Remains of a Former World*, p. 153.

Studying form in paleontology was for Parkinson a prelude, and perhaps a prerequisite, to studying the form and movement of the shaking palsy. Certainly his painstaking work classifying natural phenomena assisted him later to classify and group seemingly unrelated clinical observations. Much of this ability rested on his having, in so many ways, trained his eye, in particular under the tutelage of John Hunter. The mobility of thought and image that Hunter attempted to convey in his teaching suffuse the writing in this early article about lightning. Here, Parkinson demonstrates many of the practices that would also be part of his formulating the shaking palsy and composing the *Essay*: the careful observation, the detailed recording of what he had observed, the mobile thinking in cases and case series, and the ability to synthesize visual information and clearly communicate his conclusions.

CHAPTER 4

The Essay on the Shaking Palsy

*“The disease, respecting which the present inquiry is made, is of a nature highly afflictive. Notwithstanding which, it has not yet obtained a place in the classification of nosologists; some have regarded its characteristic symptoms as distinct and different diseases, and others have given its name to diseases differing essentially from it; while the unhappy sufferer has considered it as an evil, from the domination of which he had no prospect of escape.”*¹

With this summary description, James Parkinson introduces his *Essay on the Shaking Palsy*, in which he enumerates the hallmarks of what he is claiming to be a hitherto unrecognized but nonetheless serious and specific disease, grouping together for the first time an array of signs and symptoms that had long been described separately, some as early as Galen, and postulating that they constitute a single disease.

The *Essay* is a compact book, comprising a brief preface and five chapters, in sixty-six small pages:

- Chapter I. Definition—History—Illustrative Cases;
- Chapter II. Pathognomonic Symptoms Examined—Tremor Coactus—Scelotyrbe Festinans [the disease’s characteristic tremor and gait]
- Chapter III. Shaking Palsy Distinguished from Other Diseases with Which it May Be Confounded
- Chapter IV. Proximate Cause—Remote Causes—Illustrative Cases
- Chapter V. Considerations Respecting the Means of Cure

The book is written in a fluent style and easily comprehended, but its readability in some ways belies its meticulous construction. The book incorporates considerable scholarly apparatus to buttress its argument: tight logical construction, careful rhetorical choices, and citation of respected sources. Though easy to peruse, it is dense with learning.

The signs and symptoms described in the *Essay* include weakness and a sensation

¹ James Parkinson, *An Essay on the Shaking Palsy* (London: printed by Whittingham and Rowland, Gaswell Street, for Sherwood, Neely, and Jones, Paternoster Row, 1817), facsimile edition (London: Dawsons of Pall Mall, 1966), p. ii.

of heaviness in the limbs, trembling at rest, an abnormal hurrying gait, difficulty sleeping, unintelligibility of speech, and drooling, and Parkinson specifies that they appear in a particular sequence. Several of these signs had appeared as individual diseases in many earlier nosologies, works concerning the proper classification of diseases, including those of Sauvages and William Cullen. Before Parkinson's work, however, they had never before been united into a single disease concept.²

Parkinson named this disease *paralysis agitans*, or the shaking palsy, taking pains to explain why he has done so. By choosing the name "shaking palsy," he was consciously, and perhaps even a bit provocatively, applying an old disease name to a newly framed disease. In so doing, he had a clarifying goal, aiming to correct the error of applying the disease name to "diseases differing essentially from it."

"The term Shaking Palsy has been vaguely employed by medical writers in general. By some it has been used to designate ordinary cases of Palsy, in which some slight tremblings have occurred; whilst by others it has been applied to certain anomalous affections, not belonging to Palsy."³

The expression "shaking palsy" had, he explained, been used before, in several ways, but inconsistently. Sometimes the term was used in situations where palsy, denoting paralysis

² The word "symptom" here denotes something a sufferer feels or complains of, and "sign" denotes something that someone else can observe. Though these words were not used at this time to convey this distinction, both being termed "symptoms" and undifferentiatedly forming part of the patient's history, Parkinson was aware of the conceptual distinction between something felt by the patient but not perceivable by others and something observable by another person. In his transcription of John Hunter's lectures on surgery, he quotes Hunter on the subject: "A symptom is a sensible effect of a diseased action. The first mode of sensation is where this disease is shewn directly, without the medium of any other reference, and is known only to the patient: of this kind is pain. The second is, where it is given by a reference to some other sense, as that of touch, smell, &c., and is common to the patient and to others: of this kind is the swelling of tumours, redness of inflammation, &c. The third rises from a deficiency of sensation, and can only be known to the patient himself. It is by description, and the second set of symptoms, that the practitioner receives his information." James Parkinson, *Hunterian Reminiscences; Being the Substance of a Course of Lectures on the Principles and Practice of Surgery Delivered by the Late Mr. John Hunter, in the Year 1785: Taken in Short-Hand, and Afterwards Fairly Transcribed, by the Late Mr. James Parkinson, Author of "Organic Remains of a Former World," &c., Edited by his Son, J.W.K. Parkinson, Fellow of the Royal College of Surgeons, in London; By Whom Are Appended Illustrative Notes* (London: Sherwood, Gilbert, and Piper, Paternoster Row, 1833), pp. 40-1.

³ Parkinson, *Essay*, pp. 1-2.

or inability to move, was predominant but trembling minimal; at other times, it was applied to miscellaneous conditions: to “certain anomalous affections, not belonging to Palsy.” The word palsy had a long history by the time Parkinson used it, and it had accumulated cultural associations.⁴ In popular culture and drama, the idiom “shaking palsy” was used to signal fluttering agitation and anxiety.⁵ The disease he was positing was different from any of those things. More to the point, he was stipulating that it was the *real* shaking palsy; that its name somehow belonged to it even before his formulation. Others had given “its” name in the past to the wrong conditions, mistakenly, he implies.⁶

By formally postulating and naming a new disease, Parkinson was essentially creating a new conceptual entity, one that he hoped would define how a certain kind of suffering was classified and understood, and how it would be positioned in the larger conceptual frameworks that define disease. In practical terms, this new understanding would determine how a particular combination of signs and symptoms would be treated in medical practice; naming a disease can also facilitate practitioners’ and patients’ communication about its manifestations.⁷ But it would also create an entity that would

⁴ The word palsy is a cognate of paralysis; both come from the Middle English word indicating paralysis and variously spelled perelsy, paralsie, perlesie, parlesy, etc. The word denoted paralysis or paresis, including weakness, of all or part of the body, sometimes with tremor. In Parkinson’s time, the word was used broadly, usually in the idiom “the palsy,” to indicate weakness, shaking, paralysis, or a more general inability to move, or a combination of these.

⁵ See, for example Jane Barker, *The Entertaining Novels of Mrs. Jane Barker. In Two Volumes. IX. The Amours of Bosvil and Galesia* (London: Printed for A. Bettesworth, in Pater-Noster-Row, and E. Curll, in Fleet-Street, 1719), p. 58: “Felicity that a happy Espousal could procure. Thus my Thoughts play’d at Racket, and seldom minded the Line of Reason; my Mind labour’d under a perpetual shaking Palsy of Hope and Fear; my whole Interiour was nothing but Distraction and Uncertainty.”

⁶ Parkinson, *Essay*, p. 2.

⁷ The significance of identifying and naming diseases, and thereby producing new knowledge, has been discussed at length in the secondary literature about disease concepts and nosology. Formulating a new disease and reporting it is a way of recognizing it, framing it, and ultimately declaring it conceptually real, an entity to be considered in medical practice, for the future. Roy Porter noted that “[h]ow disturbance is perceived, and how disease is classified, makes all the difference.” Roy Porter, “The Patient’s View: Doing Medical History from Below,” *Theory and Society* 1985; 14(2): 175-98, p. 184. Elsewhere, Porter states that, “endowing the trouble [pain] with a label will, it is hoped, defuse the anxiety of ignorance. Disease naming involves classification, promotes prognosis, and indicates therapy. As the old saying puts it, a

take its place in the classificatory schemata, the nosologies, from which it had previously been missing.

It is likely that Parkinson appropriated this particular old idiom, the shaking palsy, instead of coining a new one, because he thought the name conformed better to the disease he was postulating than it did to the disorders to which it had previously been applied. The problems he was uniting in this new disease category represented several very different kinds of difficulty with movement, difficulties that seemed at first glance almost mutually contradictory. There were trembling and an abnormal gait on the one hand, and difficulty getting to limbs to move, or to obey the will, on the other. The shaking palsy was thus simultaneously and paradoxically a disease of too much movement and of too much stillness. This paradox engenders the oxymoron that is built into the disease's name, in both the English "shaking palsy" and the Latin "*paralysis agitans*."

In order to situate Parkinson's work historically, this chapter will examine the *Essay* in the context of two problems Parkinson confronted when he conceived the shaking palsy in the early nineteenth century: first, how diseases were conceptualized and classified, and second, how disordered movement was understood. Historicizing Parkinson's formulation requires identifying the conceptual categories that Parkinson had available to him for thinking about the shaking palsy: what it meant to name a disease, or

disease named is half cured . . . *Nomen est omen*." Roy Porter, "Expressing Yourself Ill': The Language of Sickness in Georgian England," in Peter Burke and Roy Porter, eds., *Language, Self, and Society: A Social History of Language* (Cambridge: Cambridge University Press, 1991), pp. 276-277. William Bynum, discussing the history of nosology, says something similar: 'To name is to know', the old adage has it. 'A disease known is half cured', runs the proverb." William F. Bynum, "Nosology," in William F. Bynum and Roy Porter, eds., *Companion Encyclopedia of the History of Medicine*, vol. I (London and New York: Routledge, 1993), pp. 335-356, p 335.

to diagnose an illness; and how, and to what degree, problems of movement were understood in the context of disease.

Parkinson's care in specifying the name for his disease so early in the *Essay* indicates how important he thought it was to name the disease correctly. For him, naming the disease accurately and describing its manifestations precisely would allow it to be classified properly in the larger scheme of diseases. The disease concept included not only a constellation of signs and symptoms, but also a time course. Parkinson intended both to depict a hitherto unrecognized disease and to demonstrate how the different disordered movements that constituted the disease unfolded, in a particular order, over a long period of time:

“The disease is of long duration: to connect, therefore, the symptoms which occur in its later stages with those which mark its commencement, requires a continuance of observation of the same case, or at least a correct history of its symptoms, even for several years. Of both these advantages the writer has had the opportunity of availing himself; and has hence been led particularly to observe several other cases in which the disease existed in different stages of its progress.”⁸

It was not the signs and symptoms alone, then, but also their characteristic sequential and protracted progression that constituted the disease. In a way that resonated with concepts of natural history, and with John Hunter's ideas about physiologic processes gradually unfolding, time itself was an essential element in the disease concept.

Parkinson continues his first chapter with a section called ‘History,’ in which he shows how an ideal case of the disease unfolds and in what order its quite heterogeneous signs and symptoms appear. The first signs, he notes, appear so insidiously and progress so slowly that it is almost impossible for a patient to recollect when the disease began. First comes “a slight sense of weakness, with a proneness to trembling in one particular

⁸ Parkinson, *Essay*, pp. ii-iii.

part; sometimes the head, but commonly in one of the hands and arms.” These problems “gradually increase in the part first affected; and at an uncertain period,” but rarely in less than a year, “the morbid influence is felt in some other part. Thus assuming one of the hands and arms to be first attacked, the other, at this period becomes similarly affected.” The disease, beginning asymmetrically, comes to affect both sides of the body. At intervals, as the existing symptoms slowly worsen, new ones appear:

“After a few more months the patient is found to be less strict than usual in preserving an upright posture: this being most observable whilst walking, but sometimes whilst sitting or standing. Sometime after the appearance of this symptom, and during its slow increase, one of the legs is discovered slightly to tremble, and is also found to suffer fatigue sooner than the leg of the other side: and in a few months this limb becomes agitated with similar tremblings, and suffers a similar loss of power.”⁹

Thus, added to the weakness of the limbs is a problem with posture, something different from the excess movement of the tremblings.

It is at this point, Parkinson says, that the patient becomes aware that there may be more afoot than being temporarily discommoded, and that a disease might be present:

“Hitherto the patient will have experienced a little inconvenience; and befriended by the strong influence of habitual endurance, would perhaps seldom think of his being the subject of disease, except when reminded of it by the unsteadiness of his hand, whilst writing or employing himself in any nicer kind of manipulation. But as the disease proceeds, similar employments are accomplished with considerable difficulty, the hand failing to answer with exactness to the dictates of the will. Walking becomes a task which cannot be performed without considerable attention. The legs are not raised to that height, or with that promptitude which the will directs, so that the utmost care is necessary to prevent frequent falls.”¹⁰

Here the paradox of the shaking palsy becomes manifest. The patient suffers from the tremblings of the extremities, but the body stops obeying the will to move. As the disease continues to progress, yet more symptoms appear:

⁹ Parkinson, *Essay*, pp. 3-4.

¹⁰ Parkinson, *Essay*, pp. 4-5.

“At this period, the patient experiences much inconvenience, which unhappily is found daily to increase. The submission of the limbs to the directions of the will can hardly ever be obtained in the performance of the most ordinary offices of life. The fingers cannot be disposed of in the proposed directions, and applied with certainty to any proposed point. As time and the disease proceed, difficulties increase: writing can now hardly be accomplished; and reading, from the tremulous motion, is accomplished with some difficulty. Whilst at meals the fork not being duly directed frequently fails to raise the morsel from the plate: which, when seized, is with much difficulty conveyed to the mouth. At this period the patient seldom experiences the suspension of the agitation of his limbs.”¹¹

By now, the sufferer is substantially disabled, sometimes seeking respite from the trembling by standing up and walking. Such movement is only partially effective as a distraction, because at this point the gait becomes severely impaired as well:

“... [A]s the malady proceeds, even this temporary mitigation [from walking] of suffering from the agitation of the limbs is denied. The propensity to lean forward becomes invincible, and patient is thereby forced to step on the toes and fore part of the feet, whilst the upper part of the body is thrown so far forward as to render it difficult to avoid falling on the face. In some cases, when this state of the malady is attained, the patient can no longer exercise himself by walking in his usual manner, but is thrown on the toes and forepart of the feet; being, at the same time, irresistibly impelled to take much quicker and shorter steps, and thereby to adopt unwillingly a running pace. In some cases it is found necessary entirely to substitute running for walking; since otherwise the patient, on proceeding only a very few paces, would inevitably fall.”¹²

This odd and hurrying gait too is a hallmark of the disease, one that Parkinson calls by an old name, *scelotyrbē festinans*.

Soon, he notes, the most basic bodily functions become affected; sleep, chewing, swallowing, and the bowels are deranged as well, presaging the final stages of the disease.

“In this stage, the sleep becomes much disturbed. The tremulous motion of the limbs occur during sleep, and augment until they awaken the patient, and frequently with much agitation and alarm. The power of conveying the food to the mouth is at length so much impeded that he is obliged to consent to be fed by others. The bowels, which had been all along torpid, now, in most cases, demand stimulating medicines of very considerable power: the expulsion of the faeces from the rectum sometimes requiring mechanical aid. As the disease proceeds

¹¹ Parkinson, *Essay*, p. 5

¹² Parkinson, *Essay*, pp. 6-7.

toward its last stage, the trunk is almost permanently bowed, the muscular power is more decidedly diminished, and the tremulous agitation becomes violent. The patient walks now with great difficulty, and unable any longer to support himself with his stick, he dares not venture on this exercise, unless assisted by an attendant, who walking backwards before him, prevents his falling forwards, by the pressure of his hands against the fore part of his shoulders. His words are now scarcely intelligible; and he is not only no longer able to feed himself, but when food is conveyed to the mouth, so much are the muscles of the tongue, pharynx, &c. impeded by the impaired action and perpetual agitation, that the food is with difficulty retained in the mouth until masticated; and then as difficultly swallowed.”¹³

At this point, another new sign appears: involuntary drooling. The saliva is not directed back toward the throat and begins to drain from the mouth, along with food that the sufferer is unable to clear and swallow.

“As the debility increases and the influence of the will over the muscles fades away, the tremulous agitation becomes more vehement. It now seldom leaves him for a moment; but even when exhausted nature seizes a small portion of sleep, the motion becomes so violent as not only to shake the bed-hangings, but even the floor and sashes of the room. The chin is now almost immoveably bent down upon the sternum. The slops with which he is attempted to be fed, with the saliva, are continually tricking from the mouth. The power of articulation is lost. The urine and faeces are passed involuntarily; and at the last, constant sleepiness, with slight delirium, and other marks of extreme exhaustion, announce the wished-for release.”¹⁴

The disease ends with death; though he does not belabor the point, it does not remit once it begins. The pattern is one of accumulating and gradually worsening symptoms.

This completes Parkinson’s ‘History,’ his depiction of how the shaking palsy unfolds in any person who develops it rather than in a specific individual. This is a case history without an individual case, a generalized picture in which Parkinson has abstracted the character and, in a sense, the natural history of the disease from the history or narrative of any particular sufferer. By doing so, he is clearly positing a disease that is specific: one that exists as an entity outside any individual patient and that takes the same

¹³ Parkinson, *Essay*, pp. 7-8.

¹⁴ Parkinson, *Essay*, pp. 8-9.

characteristic form, possibly with some variations related to the individual's past and constitution, in any person it strikes.

When he posits the shaking palsy as a specific disease, Parkinson does not define the criteria that allow an entity to attain the status of a distinct and namable disease. He seems to take for granted his readers' familiarity with, and acceptance of, the concept of disease specificity.¹⁵ This assumption might not have been so appropriate at the beginning of his career four decades earlier, but was in 1817. By this time, the earlier dominant view of disease as an individual phenomenon, depending on that person's constitution, had been gradually joined, and then partially superseded, by a more localist view of disease; that is, one that sought the seats of disease in visible lesions, recognizable at autopsy, in the organs and tissues in particular locations of the body.

Parkinson uses case histories in the *Essay* in a slightly different way than in his account of the men struck by lightning. In the latter, the format of a case series allowed him first to describe individual cases and then to abstract what the sufferers had in common, which was penetration by electricity, and then to generate hypotheses, based on what he knew of electricity, about what had occurred in men's interiors. In the *Essay*, Parkinson once again employs the format of the case series, but the process is reversed: he initially forgoes the individual cases and proceeds directly to the abstraction. Only afterwards does he present the individual case examples that he suggests led him to formulate the disease.

Absent from the 'History,' and, thus, the reader infers, not essential to it, is any discussion of etiology, or of constitutional predisposition or tendency to the shaking palsy.

¹⁵ This is the "ontologic" view that posits that diseases have a kind of "being" and exist outside the people they afflict.

Parkinson does not suggest that this disease befalls any particular kind of person any more than any other, or that the idea of a 'kind of person' is even relevant. Nor is there any discussion of therapeutic approaches or response to treatment in this section of the *Essay*. With the 'History,' Parkinson simply presents the disease as it unfolds in its prototypical conceptual form. Perhaps to emphasize the specificity of the shaking palsy, he also omits, from all the cases which follow, any discussion of the sufferers' constitutional characteristics *per se*, though he does discuss their histories and their ideas about what has caused their problems.

Parkinson presents his first individual case almost completely in terms of the composite 'History,' thereby reinforcing the idea that the general picture supersedes the individual cases. No sign, symptom, or predisposing characteristic distinguishes the first individual case; it might as well be the composite case, for all it is differentiated from it:

Case I.

"Almost every circumstance noted in the preceding description, was observed in a case which occurred several years back, and which, from the particular symptoms which manifested themselves in its progress; from the little knowledge of its nature, acknowledged to be possessed by the physician who attended; and from the mode of its termination excited an eager wish to acquire some further knowledge of its nature and cause.

The subject of this case was a man rather more than fifty years of age, who had industriously followed the business of a gardener, leading a life of remarkable temperance and sobriety. The commencement of the malady was first manifested by a slight trembling of the left hand and arm, a circumstance which he was disposed to attribute to his having been engaged for several days in a kind of employment requiring considerable exertion of that limb. Although repeatedly questioned, he could recollect no other circumstance which he could consider as having been likely to have occasioned his malady. He had not suffered much from Rheumatism, or been subject to pains of the head, or had ever experienced any sudden seizure which could be referred to apoplexy or hemiplegia. In this case, every circumstance occurred which has been mentioned in the preceding history."¹⁶

¹⁶ Parkinson, *Essay*, pp. 9-10.

Here, Parkinson particularizes not the gardener's signs and symptoms but his habits and occupation, as well as the absence of certain maladies in his past. He appears to be using the man's case not to depict the disease's manifestations so much as to illustrate the factors in a person's history that might *seem* to predispose to the shaking palsy and to rule out conditions that might resemble it or even be confused with it. Parkinson was a strong advocate of temperance, and the description of the gardener's habits is not coincidental: his sobriety has both medical and moral significance. Parkinson makes clear that although one might be tempted to attribute the man's symptoms to alcohol, a substance that also can induce tremors and an abnormal gait, the man has not brought on his tremors with too much drink. They stem from another cause.

The gardener's recent exertions with the affected limb, which he initially blames for his problems, are not unusual for someone with his occupation, and Parkinson assures himself that other medical conditions common in gardeners or people who work with their hands are also not the explanation for his symptoms. Parkinson systematically rules out the conditions with which his presumed shaking palsy might be confused: rheumatism, which might make someone achy and slow, and which might not be unusual in a gardener; problems of the brain, such as pains in the head, or seizure related to palsy or apoplexy, that might relate to ordinary paralysis. This reasoning here is so ontologic that it is almost tautological. The gardener's signs and symptoms cannot be differentiated from what Parkinson has already presented in the 'History' as the shaking palsy, because they are described completely in terms of that "History."

Parkinson's second case is a man he did not examine or provide medical care for but rather "casually met with in the street:"

Case II.

“ . . . It was a man sixty-two years of age; the greater part of whose life had been spent as an attendant at a magistrate’s office. He had suffered from the disease about eight or ten years. All the extremities were considerably agitated, the speech was very much interrupted, and the body much bowed and shaken. He walked almost entirely on the fore part of his feet, and would have fallen every step if he had not been supported by his stick. He described the disease as having come on very gradually, and as being, according to his full assurance, the consequence of considerable irregularities in his mode of living, and particularly of indulgence in spirituous liquors. He was the inmate of a poor-house of a distant parish, and being fully assured of the incurable nature of his complaint, declined to making any attempts for relief.”¹⁷

Once again, Parkinson specifies the man’s occupation and includes the man’s own understanding of why this illness might have befallen him: because of an irregular life and overindulgence in “spirituous liquors.”

The juxtaposition of this second case with the first is convenient, as it allows Parkinson to show in a different way from the first that “spirituous liquors,” though they may cause problems with tremors and gait, are not responsible for the particular disease he has observed, even though the man attributes his symptoms to his drinking and believes they are incurable. The two men’s habits differ, but the disease is the same in the bibulous former magistrate’s attendant as in the abstemious gardener. And though this second man once had a job with relatively high status, his social status has declined, and he is now the “inmate of a poor-house.” He is thus, in the parlance of the day, already receiving [poor] relief, though in the medical sense he has “declined making any attempts for relief;” that is, for treatment. The double sense of the word “relief” would not have been lost on Parkinson, who provided care in a workhouse. There is a whiff of disapproval here, about both the overindulgence and the refusal of treatment; the reader is left to wonder whether they might be connected.

¹⁷ Parkinson, *Essay*, pp. 10-11.

The second case also differs from the first in simply depicting a snapshot of the disease at one quite late stage, rather than describing, or even alluding to, the whole unfolding of the disease. The case history suggests that this man was spotted, observed, and then interviewed, in a single moment, out on the street and that Parkinson felt it was permissible to approach and interview this stranger about physical impairments that he had observed outdoors and from a distance.

Parkinson's initiation of the interview here represents a reversal of the usual process in a medical encounter, when it is the patient who seeks out the doctor. But this is not exactly a medical encounter; it is, in a way that evokes the article about the men hit by lightning, more like a natural historical encounter, in which Parkinson is exploring something he has observed in his habitat. While Parkinson implies that he offered the man the opportunity for treatment, the primary reason for the interview was not therapeutic but scientific: Parkinson wanted information about the symptoms and time course of the abnormal movements that he observed in the man. The information about the disease's long duration and gradual progression is supplied not by Parkinson's observation, but by the man's narrative. All the expected signs and symptoms are present, but some only insofar as they are recounted by the sufferer. The implication is that they have appeared in the order specified in the 'History.'

Parkinson does not describe in the *Essay* when or why he began thinking about the disordered movements that he later grouped together as the shaking palsy. But at some point something about these movements must have caught his attention. Something must have evoked a sense of having seen that pattern of movements together, and possibly even the order of their occurrence, before. One cannot conceptualize a new way

to group phenomena, recognize the quality that they share, unless one has seen that quality more than once. Speaking about the accumulation and centralizing of knowledge that only repeated observations can reveal, Bruno Latour noted that one doesn't recognize a thing or event as anything—one doesn't actually know it—until one encounters it the second time; one somehow has to group the similars in the first place, to accumulate them, in order to begin to know them:

“The first time we encounter some event, we do not know it; we start knowing something when it is at least the second time we encounter it, that is, when it is familiar to us. Someone is said to be knowledgeable when whatever happens is only one instance of other events already mastered, one member of the same family.”¹⁸

But one also cannot recognize that quality without being mentally prepared to notice such commonality either; one has to be paying a certain kind of open-ended attention.

Something allowed Parkinson to recognize a pattern and somehow conceptually to separate these particular abnormal movements, which appeared related to each other in some way, from the array of impaired mobility he observed in his practice and on the street: impairment resulting from paralyses, congenital malformations, injured limbs, deformed joints, and all manner of nervous diseases, just to name a few. Something also allowed him also to distinguish this pattern, one that seemed preferentially to affect older people, from the many varieties of age-related infirmity he encountered: slowness and limps, stooped postures, muscle wasting and weakness, and shuffling gaits.

Parkinson was a seasoned observer with a facility for organizing his own thinking using the format of a case series, a format flexible enough to allow one quite easily to group together previously unconnected things. The individual cases joined in a series share a particular characteristic, but they need not be identical. The important question is

¹⁸ Bruno Latour, *Science in Action* (Cambridge: Harvard University Press, 1987), p. 219.

how one recognizes, and then conceptually isolates and positions boundaries around, whatever essence the cases share: how one knows which seemingly similar entities to exclude from the category and how one differentiates, with words and concepts, between one shared essence and another.

While Parkinson did not feel compelled to argue in the *Essay* in favor of the existence of specific diseases as entities, he did feel the need to differentiate between ‘mere’ symptoms and true diseases like the shaking palsy. Much of his justification for writing and publishing the *Essay* rested on his claim that the shaking palsy was different in nature from its sometimes previously described parts; his goal was to convince the reader that it was a true disease.

The conceptual distinction between a symptom and a disease was complicated in Parkinson’s time and had been continually debated over the previous half-century.¹⁹ The question of what constituted a disease, and how all the known diseases should properly be classified, was of great consequence at the time, resulting in a profusion of compendious nosologies, works prompted by the drive to name, catalogue, and correctly classify all the phenomena of the natural world, including all diseases.

Many such attempts to organize and classify the varieties of illness were modeled on the familiar, especially Linnaean, hierarchical methods of botanical classification, which involved grouping individual specimens according to their important (or essential, in the Aristotelian sense) and shared characteristics, starting with the large group of similar specimens (a genus) and differentiating each genus into subgroups according to

¹⁹ These theoretical issues have not been totally resolved, although the questions apply at the present time in different ways and to different conditions than in earlier centuries. See Robert Aronowitz, “When Do Symptoms Become a Disease?” *Annals of Internal Medicine* 2001; 134: 803-808; and *Making Sense of Illness* (Cambridge, New York and Sydney: Cambridge University Press, 1998).

other, less essential, characteristics, and those subgroups into further subgroups, *et cetera*, down to the level at which further no further differentiation was possible: the level of the individual species. Individual conditions, in these taxonomies of disease, were treated as species, as Sydenham had recommended a century earlier, and arranged in a hierarchical framework according to their characteristics.²⁰ Linnaeus, who had a medical degree, had himself created a hierarchical taxonomy of known diseases analogous to his botanical taxonomy.²¹

The difficulty with such neat schemata, however, was that the manifestations of illness were not so easily isolated and separated as plants. Boundaries between types of suffering were obscure, and their essential characteristics were elusive, especially at a time when medicine was still mostly operationally conceptualized and treated in terms of sufferers' individual constitutions. The issues of how to structure the details of the hierarchy, and of what constituted an essence-- a complaint, a visible localized manifestation, a systemic manifestation, an epidemic occurrence, or a putative cause?—remained muddy.

²⁰ The discussion here relates only to nosologic schemata insofar as they are relevant to what Parkinson was trying to do. A considerable secondary literature is available on the larger subject of the history of nosology and disease taxonomy. See, for example, Knud Faber, *Nosography in Modern Internal Medicine* (New York, Hoeber, 1924), Part II, pp. 28-58, especially p. 52; and Bynum, "Nosology." For other discussions of disease specificity, boundaries and definition, see Owsei Temkin, *The Double Face of Janus and Other Essays in the History of Medicine*, (Baltimore: Johns Hopkins University Press, 1977), "An Historical Analysis of the Concept of Infection," pp. 456-471; and "The Scientific Approach to Disease: Specific Entity and Individual Sickness," pp. 441-455. Lloyd Stevenson's article, "New Diseases in the Seventeenth Century," explores the conceptual distinction between newly existing and newly named diseases, *Bulletin of the History of Medicine* 1965; 39(1): 1-21. Lester King's chapter, "Nosology," in *The Medical World of the Eighteenth Century* (Chicago: University of Chicago Press, 1958), pp. 193-226, contains useful information but has a presentist slant that detracts from its utility here. For a nuanced discussion of nosologic reasoning before Parkinson, see Julian Martin, "Sauvage's Nosology: Medical Enlightenment in Montpellier," in Roger French and Andrew Wear, eds., *The Medical Revolution of the Seventeenth Century* (Cambridge and New York: Cambridge University Press, 1989), pp. 111-37.

²¹ Carl Linne (Carolus Linnaeus), *Genera Morborum in Auditorum Usum* (Uppsala, 1763).

Earlier nosologies were mostly, but never completely, taxonomies of signs and symptoms, but as the eighteenth century progressed, their frameworks, especially those of François Boissier de Sauvages and William Cullen, evolved to incorporate new views of what constituted disease.²² These nosologies attempted to differentiate between local and constitutional disease and to incorporate the new information gleaned from pathoanatomy and its larger claim: that diseases had localizable seats. Some diseases were thus classified by seat, but not exactly by cause, as pathology was conceptually not equivalent to etiology. But the increasing inclusion in nosologies of pathoanatomical and localist disease concepts reflected the increasing influence of surgical thinking in how disease was conceptualized as the eighteenth century progressed.²³

Thus, by the second half of the eighteenth century, there were several simultaneously operating ways of identifying and classifying diseases: by symptom, by type, by location, by duration, by cause, and by underlying pathology. Several late-eighteenth-century nosologies, including those of Sauvages and Cullen, included symptoms, long-recognized specific diseases like smallpox, and pathoanatomically recognized diseases.²⁴ Thus diseases like syphilis appeared, but their symptoms might

²² Eighteenth-century nosological schemata are sometimes described as symptom-based taxonomies, but this characterization is somewhat anachronistic and ahistorical. In fact, they were less symptom-based schemata than classifications of symptoms; the symptoms listed *represented* the diseases; they were not separate from them. See William Cullen, *Nosology: Or a Systematic Arrangement of Diseases, by Classes, Orders, Genera and Species, With the Distinguishing Characteristics of Each, According to the Outlines of Sauvages, Linnaeus, Vogel, Sagar, and Macbride* (Edinburgh: C. Stewart and Co, 1800); and François Boissier de la Croix de Sauvages, *Nosologia Methodica Sistens Morborum* (Amsterdam: Sumptibus Fratrum de Tournes, 1768).

²³ See Temkin, "The Role of Surgery."

²⁴ William Bynum notes that Phillippe Pinel's *Nosographie Philosophique*, which appeared in 1798, grappled more than Cullen's, in its classifying of disease, with reconciling clinical signs and symptoms with pathologic findings. Parkinson does not cite Pinel, however. See Bynum, "Nosology," p. 348.

appear separately; what was described as a symptom in one place might be described as a disease in another place, or several other places, and *vice versa*.²⁵

Consequently, the difference between a disease and a symptom remained something of a moving target. Over time, the justification for calling something a disease increasingly required the presence of a recognizable pathoanatomic lesion. But in 1817, when Parkinson published the *Essay*, the existing nosologies remained confusingly heterogeneous in their criteria for deeming something worthy of inclusion as a distinct condition. And the disease that he was calling the shaking palsy had several features that made it difficult to place in existing nosologies. It not only comprised a quite particular, but also quite heterogeneous, group of signs and symptoms; it also had a specific time course and order, unfolding and advancing in a particular way over a long time in a particular sufferer. Thus some signs and symptoms necessary to the disease picture were present, in the early stages of the disease, only *in potentia*.

It is difficult know for sure how intimately familiar Parkinson was with the contents of late eighteenth-century nosologies *before* he began thinking about the shaking palsy, though he discussed elsewhere the importance for medical practitioners of being familiar with the characteristics of the diseases they might encounter. It is clear that he was well read in medicine, and he cited Cullen, recommending his nosologic work to students.²⁶ But the existing taxonomies of movement, with their long lists of types of impaired movement, may not have contributed directly to his formulation the shaking

²⁵ Lester King notes, for example, that Linnaeus, in his *Genera Morborum*, lists nine elements of the disease variola, but that six of those nine appear elsewhere as disease genera themselves. “Nosology,” p. 201.

²⁶ In *The Hospital Pupil; Or An Essay Intended to Facilitate the Study of Medicine and Surgery* (London: H. D. Symonds, 1800), Parkinson notes that during the early periods of reading about medicine, the student “may also impress upon his mind, so strongly as to be prompt to his recollection, the generic characters, at least, from the Nosology of Cullen,” p. 52.

palsy. Rather, he may have envisioned the disease using other conceptual methods, and then consulted the nosologies for corroboration of his ideas.

If the *Essay's* order of presentation reflects the sequence of Parkinson's thinking, it suggests that Parkinson observed the problem first and that it was only afterwards, when he realized he had observed something that he did not remember reading about before, that he investigated whether it had previously been described. He may have consulted the nosologic works he cites—Juenker, Sauvages, Gaubius, Cullen, et al.-- only *after* he developed his concept of the disease, to check on himself and to make sure his idea of the shaking palsy had not already been described as such without his knowing it. These works do not seem to have formed his description of what he observed.

Further complicating the shaking palsy's proper classification were concepts still commonly held during Parkinson's time about how one disease could transform into another, different disease.²⁷ In an examination of the metastatic theory of pathogenesis that was held by physicians in the eighteenth century, Malcolm Nicolson describes how diseases were believed to metamorphose from one onto another.²⁸ Noting the theoretical complexity of much eighteenth-century medicine, the "bewildering array of texts and theories . . . that seem to be a distinctive feature," Nicolson attempts to distill from these

²⁷ See, for example, Charles Rosenberg: "In traditional medicine, disease concepts were focused on the individual sufferer. They were symptom-based, fluid, idiosyncratic, labile, and prognosis-oriented. Diseases were seen as points in time, transient moments during a process that could follow any one of a variety of possible trajectories. A common cold could become bronchitis, for example, and could then resolve without long-term consequences or could terminate, rapidly in a fatal pneumonia or slowly in chronic lung disease . . . A humoral imbalance might manifest itself in the form of a fever or superficial lesions as the body tried to relieve itself of noxious matter through the skin." Rosenberg, "The Tyranny of Diagnosis: Specific Entities and Individual Experience," *Milbank Quarterly* 2002; 80(2): 237-260, p. 242.

²⁸ Metastasis, in Nicolson's essay, has a very different meaning from its current use and does not denote the spread of cancer. See Malcolm Nicolson, "The Metastatic Theory of Pathogenesis and the Professional Interests of the Eighteenth-Century Physician," *Medical History* 1988: 32: 277-300.

theories what they held in common.²⁹ The essential idea they shared was that the body harbored morbid material even when healthy, and that this morbid material naturally sought egress from the body through excretion or secretion. When egress was blocked, however, the morbid material might accumulate, resulting in illness. The moving of morbid material from one to another part of the body, whether because of blocked egress or for another reason, induced a change in the location and nature of the symptoms.

Though the idea that one disease could transform into another had waned in influence somewhat by the time of Parkinson published the *Essay*, it had been prevalent during his training and was still influential; even when it did not frame thinking about etiology, it still often underlay therapeutics. In the case of the shaking palsy, however, this theory would have made it more rather than less difficult for a practitioner to connect the disparate signs and symptoms and to see them as a single protracted process that was all part of the same disease. The long time course and heterogeneity of its manifestations would obscure the connection between them.

Rather than according with a metastatic theory of disease, then, Parkinson's formulation of the shaking palsy actually served to counter it. He specifies that the single disease is present, unfolding in its characteristic way, over years, instead of transforming from one disease into another. How it will develop over time is determined from the start by its nature; it is not pluripotential as metastatic disease is. The picture is different enough from that proposed in the metastatic theory as to suggest that Parkinson must have been working with a quite different theory about how diseases maintain their

²⁹ Nicolson cautions over-attention to the minutiae of these theories: "[N.] Jewson gives us grounds to suspect that much of this new theorizing was produced by a fashion for arbitrary novelty. The details of each new theory may therefore be of no great cultural significance. Fascinating as such superficial variation might be for the intellectual historian, it should not be allowed to prevent the recognition of more stable and enduring patterns of professional interest and patient-practitioner interaction," p. 279.

identity over time than Nicolson is describing. The picture he presents is more consonant with the idea of natural history, evoking the simultaneous continuity and change that characterize the gradual development of an organism, development that unfolds the same way in all individuals of a species.³⁰

Because diseases and symptoms thus remained somewhat confounded, existing taxonomies of disease did not exactly provide justification for Parkinson's claim that the shaking palsy was a specific disease that differed from its component symptoms. But as a result of his training as a surgeon, he had another conceptual stream, different from that of physicians, to direct his thinking about what constituted disease, one partially based on his tactile and localist surgical experience, and partially based on what he had learned from John Hunter.³¹ The most important influence on Parkinson's thinking about nosology was likely not the taxonomists of disease but Hunter.

The lectures by Hunter that Parkinson had attended in the winter of 1785-1786 included lengthy discussions about what constituted disease and how diseases should be classified. These lectures, as transcribed by Parkinson, include a long and quite theoretical section called "Diseases, Constitutional and Local," which show Hunter

³⁰ This more natural historical view, according to which diseases were expected to follow a particular clinical course over time, was, as Charles Rosenberg notes, more a nineteenth-century than an eighteenth-century way of viewing disease, and indeed more a late than an early nineteenth-century view: "Those [earlier] generally fluid and nonspecific ideas had changed fundamentally at the beginning of the twentieth century. Recognizably modern notions of specific, mechanism-based ailments with characteristic clinical course were a product of the nineteenth century." "The Tyranny of Diagnosis," p. 242. During the nineteenth century, he says, and particularly by the 1870's, "[a] legitimate disease had both a characteristic clinical course and a mechanism, in other words, a natural history that-- from both the physician's and the patient's perspective-- formed a narrative. The act of diagnosis inevitably placed the patient at a point on the trajectory of that predetermined narrative," p. 243.

³¹ By the late eighteenth and early nineteenth centuries there was no longer any boundary that could be seen as neatly dividing the surgical view of disease from the medical, or that rendered a category of diseases somehow exclusively surgical, but surgeons were nonetheless still particularly expert and experienced in taking care of physical injuries and medical problems that presented locally, in a particular part of the body, and those that presented with visible or external signs.

attempting to differentiate among types of diseases based partly on how they begin or present.³²

“It is difficult to know a truly local disease from one which is constitutional. Many diseases are entirely local: some are local, though produced by a constitutional disposition, or the cause being general in the constitution, but producing its effects strictly local. Diseases then are: first, constitutional; second, local; third, mixed. They may be originally constitutional, or originally local; they may take place independent of each other; or they may affect one another. Constitutional may be: first, universally constitutional; or, secondly, constitutionally local. The first of these is where there is an universal action, and which is according to the constitution, and the influence exciting it: as in fevers, varying with their exciting cause and the constitution.”³³

He proceeds to characterize, still in highly theoretical language, each of the kinds of diseases he lists---constitutionally local, originally local, and mixed—and to give examples before proceeding to a different kind of taxonomy:

“All diseases are either common or specific; but it is probable that most diseases have something specific in their nature. The common appears to be those in which the natural action is so altered as not to require anything specific in their cure. Many diseases are specific in their nature, though their causes are not so, as in gout, ague, cancer: this last will, indeed, produce a specific cause. Specific diseases all differ from one another, and if truly specific, can arise from only one cause: gout, ague, and even cancer, may be produced by many causes.”³⁴

Hunter is, in these passages, difficult to follow, and likely was so for his contemporaries as well. But this may be in part because he is trying to combine different intellectual frameworks into a new way of envisioning disease, and the combination doesn’t yet have a convenient vocabulary. He is trying, among other things, to distill what constitute the shared, or specific, elements of diseases, thinking that most diseases have at least some specific or non-constitutional element. And he is trying to connect that specificity

³² Hunter was familiar with William Cullen’s ideas and work; his brother William had studied with Cullen, and he himself corresponded with Cullen.

³³ Parkinson, *Hunterian Reminiscences*, p. 30.

³⁴ Parkinson, *Hunterian Reminiscences*, p. 32.

theoretically to physiologic process, and physiologic process to etiology, as a set of organizing principles.

This resulting framework, or set of organizing principles, is conceptually different from what contemporary taxonomists of disease were doing in their complicated works.

Later in the lecture series, in a section called “Disease,” he tackles the subject again:

“We now begin with what I term disease . . . Specific diseases may be local or general; the first, as chancre or cancer; the second as small-pox, pox, &c. The irritable and indolent I treat as specific, they possessing their own specific modes of action, although that particular mode of action may be brought on by many immediate causes, in the same manner as the specific action of the gout may be brought on by various exciting causes, such as sprains, &c., the same specific susceptibility being capable of being brought into action by different exciting causes. There are other specific actions which can arise only from one specific exciting cause, such as the pox. The irritable and indolent dispositions may be brought into action by different causes, and each by the same cause, as the venereal disease.”³⁵

Again, he connects specificity with etiology, although predisposition and irritability, the heightened reactivity of an organ to external stimuli, contribute as well. Throughout this set of lectures, the organizing principle is process rather than taxon; there is no classificatory hierarchy, but disease concepts are linked, through underlying processes such as inflammation, into a kind of continuous network.

By the early nineteenth century, the complex hierarchical taxonomies of disease were already slowly giving way to the more pathoanatomic ways of conceptualizing and classifying disease, and their utility for medical practice was being questioned.³⁶ But the

³⁵ Parkinson, *Hunterian Reminiscences*, p. 133.

³⁶ In 1817, when the *Essay* was published, the practice of creating ordered nosologies had become controversial: complex nosological schemata were still being published, but their utility was being challenged. In the same issue of *The London Medical and Physical Journal* in which the first published review of Parkinson’s *Essay* appeared, there was also a review of the John Mason Good’s *The Physiological System of Nosology, with a Corrected and Simplified Nomenclature* (London: Cox and Co., 1817). The long, anonymous summary review inquires, “Can we wish, let us ask, for a more perfect specimen of small-pox and its varieties than Sydenham offers, or of the gout, or of fevers, than we meet in the same writer; or of the venereal disease, in all its forms, than Mr. Hunter presents us; or of scarlatina,

old schematized texts, particularly those of William Cullen, still held authority and were still in use, especially as teaching and reference works.³⁷ It appears from the *Essay* that Parkinson, having studied them as a student, was now using these works as encyclopedias. While he may no longer have been learning about the spectrum and nature of diseases *from* them, he probably hunted for diseases *in* them.

The nosologies of Linnaeus, Sauvages, and Cullen all included classes of diseases relating to abnormal movement, and Parkinson searched them and other compendia, looking for the complex disease concept he was calling the shaking palsy.³⁸ He did not find it. Other conditions that had been called the shaking palsy did not correspond to his concept of the new disease, and the new disease did not appear, under any name, in these works.

When Parkinson argues in the *Essay* that the shaking palsy is a newly recognized and specific disease, he makes no mention of where in the existing nosologic frameworks, or into which named genus or class of diseases, the shaking palsy should be placed; placement seems not to concern him. Existing nosologies did, however, include descriptions of different kinds of tremor and abnormal gait, varieties of which were the shaking palsy's most observable, and most easily analyzable, signs. His first task, then,

than Fothergill's; of elephantiasis, than Dr. Adams's; or of bronchitis, than Badman's?—And what assistance have they derived from artificial arrangement? . . . For our parts, we have no objection to any [nosology of disease], excepting as they endanger decision in the practice of acute diseases, and in chronic or local complaints encourage indolence, by substituting terms for well-defined descriptions." *The London Medical and Physical Journal* 1817; 38 (223): 210-240, pp. 229-30.

³⁷ See Bynum, "Nosology."

³⁸ Linnaeus's *Genera Morborum* (Uppsala, 1759), which provided a taxonomy but not a discussion of diseases, included categories of disease related to movement. This work described eleven groupings of diseases, three of which were classes of fevers (*morbi febriles*) and eight were not (*morbi temperati*). Among the non-febrile classes, two related to movement: class VI, the *Quietales* (relating to the loss of power of movement) and class VII, the *Motorii* (relating to abnormal movement). The latter group he divided into the *Spastici* and the *Agitatorii*. None of the diseases listed under these categories corresponds to the problems Parkinson identified, though trembling from fear and shivering from cold are mentioned (*Tremor Pavrium*), as are chorea and several varieties of rigidity (pp. 14-17).

was to specify exactly to which kind of previously-described tremor, and to which disturbance of gait, if any, the tremor and gait he had observed corresponded, so that he might convincingly differentiate them from problems resembling them.

Two of the individual cases Parkinson included in the *Essay* highlight the trembling and unusual gait. Case III describes a man with severe trembling and difficulty walking, who, like the man described in Case II, was observed outdoors rather than indoors or in Parkinson's medical practice:

“Case III.

The next case was also noticed casually in the street. The subject of it was a man of about sixty-five years of age, of a remarkable athletic frame. The agitation of the limbs, and indeed of the head and of the whole body, was too vehement to allow it to be designated as trembling. He was entirely unable to walk; the body being so bowed, and the head thrown so forward, as to oblige him to go on a continued run, and to employ his stick every five or six steps to force him more into an upright posture, by projecting the point of it with great force against the pavement.³⁹

The walk here has become so uncontrollable a run that the man attempts to compensate for it by using a walking stick to change his posture or to prop him up. His gait is no longer a walk, and his trembling so severe as to be beyond trembling. It is not weakness or the frailty of old age that puts him at risk of falling; Parkinson makes a point of mentioning the man's “remarkable athletic frame.” In spite of being about sixty-five, this man was not suffering merely from the problems of old age.

Case V describes another man seen on the street, a man who “was only seen at a distance;” that is, who was not interviewed at all. His running gait is observed at yet a later and more severe stage of the disease:

“Case V.

“In another case, the particulars of which could not be obtained, and the gentleman, the lamented subject of which was only seen at a distance, one of the

³⁹ Parkinson, *Essay*, pp. 11-12.

characteristic symptoms of this malady, the inability for motion, except in a running pace, appeared to exist in an extraordinary degree. It seemed to be necessary that the gentleman should be supported by his attendant, standing before him with a hand placed on each shoulder, until, by gently swaying backward and forward, he had placed himself in equipoise; when, giving the word, he would start in a running pace, the attendant sliding from before him and running forward, being ready to receive him and prevent his falling, after his having run about twenty paces.”⁴⁰

This man needs more than a walking stick; he is so disabled by the disease as to need the help of another person to walk without falling. In this case, the sufferer provides no narrative, but, for Parkinson’s purposes, he does not need to. The gait is so characteristic and so disturbed—“the almost invincible propensity to run, when wishing only to walk”-- that observation suffices.⁴¹ Here Parkinson infers the man’s wish to walk without actually interviewing him.

Following the case histories, which he presents without commentary, Parkinson proceeds to analyze the signs and symptoms he has observed. He begins with the gait and the trembling, the two most distinctive manifestations of the shaking palsy, in a chapter entitled “Pathognomonic Symptoms Examined.” He classifies the gait as one of the *scelotyrbes*, a word that he does not define but that denotes general lameness, under the heading, “A propensity to bend the trunk forwards, and to pass from a walking to a running pace.” He notes that this gait was first described by Gaubius, whom he quotes:⁴²

“Cases occur in which the muscles duly excited into action by the impulse of the will, do then, with an unbidden agility, and with an impetus not to be repressed, accelerate their motion, and run before the unwilling mind. It is a frequent fault of

⁴⁰ Parkinson, *Essay*, pp. 13-14

⁴¹ Parkinson, *Essay*, p. 19. In this case Parkinson is able neither to observe the patient’s symptoms over a long time nor to obtain a history from the patient.

⁴² *Scelotyrbe*, from the Greek *σκελτυρβη*, is defined as “a lameness in the ankles or in the knees,” from Pliny. Charlton T. Lewis and Charles Short, *A Latin Dictionary* (Oxford: Oxford University Press, impression of 1969; First Edition 1879), p. 1640. Hieronymus David Gaubius (1705?-80) was Professor of Chemistry at Leiden.

the muscles belonging to speech: I have seen one, who was able to run, but not to walk.”⁴³

In his *Institutions of Medical Pathology*, Gaubius divides diseases into a single set of about fifty categories. Among these categories are “Errors in Animal Motions,” “Injuries from Particular Motions and Postures,” “Symptoms of the Motive Power,” “Spasm,” and “Paralysis.” Gaubius’s categories are divided into numbered paragraphs that describe but never give a name to the varied manifestations of the category (the variations of the type). He classes the running gait (#731) among the spasms, and in the part of the passage that Parkinson does not quote, he explains why:

“... [F]or I have seen those who could run, but not walk. That volubility has something spasmodic, and therefore belongs to this place [the spasm category]. Does it likewise obtain in spontaneous motions? We may believe that the peristaltic motion is so affected, when things ingested by a very quick passage through the windings of the intestines, are violently ejected from the anus.”⁴⁴

Gaubius, then, conceptualizes this gait as a kind of muscle spasm, analogous to the intestinal spasms of diarrhea, but examines it no further.

Parkinson also cites Sauvages at length, quoting the Latin version of Sauvages’s 1768 work in a footnote and paraphrasing it in his text. Sauvages placed this gait, which he described as highly unusual (*rarissima*), in the genus *Scelotyrbe*, which included the species *Chorea sancti viti* (St. Vitus’s Dance). He named it the hastening or hurrying *Scelotyrbe* (*Scelotyrbe festinans, seu festiniam*):

“*Scelotyrbe festinans*, he says, is a peculiar species of scelotyrbe, in which the patients, whilst wishing to walk in the ordinary mode, are forced to run. . . . Mons. de Sauvages attributes this complaint to a want of flexibility of the muscle fibers. Hence, he supposes, that the patients make shorter steps, and strive with a more than common exertion or impetus to overcome the resistance; walking with a

⁴³ Parkinson, *Essay*, p. 24. This is Parkinson’s own translation from the Latin.

⁴⁴ H. D. Gaubius, *The Institutions of Medicinal Pathology*, translated from the Latin, by Charles Erskine, Surgeon (Edinburgh: Printed for the Translator: And sold by C. Elliott, and T. Caddell, London, 1778). This translation by Erskine of the earlier part of the passage does not differ materially from Parkinson’s.

quick and hastened step, as if hurried against their will. *Chorea Viti*, he says, attacks the youth of both sexes, but this disease only those advanced in years; and adds, that it has hitherto happened to him to have seen only two of these cases; and that he has nothing to offer respecting them, either in theory or practice.”⁴⁵

Basing his conclusion on two cases, Sauvages states that this gait affects only the aged.

Parkinson notes that the disease seldom occurs before age fifty; his six cases are all at least in their fifties. And while Parkinson’s cases are all men, Sauvages, in the section of the Latin passage that Parkinson does not translate or paraphrase, mentions a sexagenarian woman afflicted with *Scelotyrbe festinans* whom he attempted to treat with diet and phlebotomy.⁴⁶ An important point that Sauvages does make is the rarity of *Scelotyrbe festinans*; he states that in his long experience of looking at diseases, he has only encountered it twice, which, as Bruno Latour pointed out, is the fewest possible encounters that would allow an observer to “recognize” a pattern, or to see something as a distinct entity.

Parkinson’s discussion of earlier classifications of the shaking palsy’s tremor is a bit more detailed than that of the gait, perhaps because it is slightly less obviously distinctive than the gait. Under the heading, “Involuntary tremulous motion, with lessened voluntary muscular power, in parts, not in action, and even supported,” he

⁴⁵ Parkinson, *Essay*, pp. 25-6. This passage paraphrases the longer passage of Sauvages quoted in Latin in Parkinson’s footnote; the passage is found in Sauvages’ *Nosologia Methodica*, vol. 2, p. 108. Sauvages’s nosologic work was much more than a simple taxonomy, giving short histories of the diseases he classified, and occasionally discussing therapy. In this work, Sauvages was attempting not only to classify and order diseases but also to accomplish the program of writing their histories, as had been suggested earlier by Baglivi, in his *De Praxi Medica*. Sauvages’s botanically-inspired scheme of classification predated the work of Linnaeus, with whom he corresponded, and was influenced by the earlier botanical taxonomies devised at Montpellier that differed from that of Linnaeus. See Martin, “Sauvages’s Nosology,” pp. 111-37; and Bynum, “Nosology,” pp. 345-6. Thanks also to the late Harry M. Marks for insights in conversation about Sauvages’s ideas about what constituted method and about the Baconian and Newtonian roots, and reforming intention, of his enterprise.

⁴⁶ Parkinson, *Essay*, p. 26, Footnote: “*Video actu mulierem sexagenariam hoc affecam in modo siccitati nervorum tribuendo; laborat enim rheumatismo sicco, seu ab acrimonia sanguinis, dolores nocte a calore recrudescunt, à thermis non sublevantur: ei prescripsi phlebotomiam, et praemissis juculis ex lactucâ, endiviâ, et collo arietis, lene catharticum, inde vero lactinia.*” Cited from Sauvages, *Nosologia Methodica*, vol. 2, p. 108.

begins his discussion by noting Juncker's division of tremors into "active" ("those proceeding from sudden affections of the mind, as terror, anger, &c.") and "passive" (those "dependant on debilitating causes, such as advanced age, palsy, &c."). He finds Juncker's dichotomy less satisfactory and useful than that of Sylvius de la Boë, who divided tremors into "those which are produced by attempts at voluntary motions and those "which occur whilst the body is at rest." The latter Sauvages called *Tremor coactus*.⁴⁷ Parkinson paraphrases Sauvages's description of *Tremor coactus*:

"[T]he tremulous parts leap, and as it were vibrate, even when supported; whilst every other tremor, he observes, ceases when the voluntary exertion for moving the limb stops, or the part is supported, but returns when we will the limb to move; whence, he says, [the] tremor is distinguished from every other kind of spasm."

Parkinson distinguishes the kind of trembling that occurs when the limb is at rest, the palpitations of the limbs, or *Tremor Coactus* of Sylvius de la Boë, from the other species of tremor, which he calls "tremor," that occur when the limb is in action:

"Thus an artist, afflicted with the malady here treated of [*Tremor Coactus*, or palpitation of the limbs], whilst his hand and arm is palpitating strongly, will seize his pencil, and the motions will be suspended, allowing him to use it for a short period; but in tremor, if the hand be quite free from the affection, should the pen or pencil be taken up, the trembling immediately commences."⁴⁸

Parkinson notes that the *Tremor Coactus* of Sylvius was the same tremor as the *Palmos* (παλμος) described by Galen and noticed by van Swieten, and that Sauvages was correct to separate it "from the Genus Tremor."⁴⁹ Significantly, in none of the earlier descriptions of the *Tremor Coactus* and the *Scelotyrbe festinans* were the two linked or seen as related.

⁴⁷ Parkinson, *Essay*, pp. 19-20;

⁴⁸ Parkinson, *Essay*, pp. 23-4.

⁴⁹ Galen differentiated among four kinds of shaking in his work, *On the Causes of Symptoms I*: spasm or convulsion (*spasmos*), tremor (*tromos*), palpitation (*palmos*), and rigor (*rigos*). It is *palmos* to which the tremor at rest described by Parkinson corresponds. See Ian Johnston's translation of Galen: Ian Johnston, *Galen on Diseases and Symptoms* (Cambridge and New York: Cambridge University Press, 2006), p 235.

Having thus persuaded himself, and the reader, that although its individual manifestations had been identified separately in the past, they had not been combined into a single disease concept before, Parkinson then bolsters his argument by presenting a discussion of diseases with which the shaking palsy could be confused in medical practice, with explanations of why they are not the same entities:

“Treating of a disease resulting from an assemblage of symptoms, some of which do not appear to have yet engaged the general notice of the profession, particular care is required whilst endeavoring to mark its diagnostic characters. It is sufficient, in general, to point out the characteristic differences which are observable between diseases in some respects resembling each other. But in this case more is required: it is necessary to show that it is a disease which does not accord with any which are marked in the systematic arrangements of nosologists; and that the name by which it is here distinguished has been hitherto vaguely applied to diseases very different from each other, as well as from that to which it is now appropriated.”⁵⁰

His task, then, is first to separate his new disease from heterogeneous group of other conditions that have been *called* the shaking palsy, and then to separate it from other conditions previously given other names that *actually* resemble it in some way. He begins with what have in earlier medical writings been called shaking palsies “a term which appears to be improperly applied to these cases, independent of the want of accordance between them and that disease which has been here denominated the Shaking Palsy.”

Using the word “palsy” to denote paralysis, he says that “[p]alsy, either consequent to compression of the brain, or dependent in partial exhaustion of the energy of that organ, may, when the palsied limbs become affected with tremulous motions, be confounded with this disease.” Ordinary palsy and the shaking palsy are different, however: in the true shaking palsy, the symptoms come on very slowly, even imperceptibly, while in other palsies they come on suddenly, with “the sense of feeling

⁵⁰ Parkinson, *Essay*, pp. 27-8.

being sometimes also impaired.” In the shaking palsy, he says, the trembling always accompanies, and sometimes precedes, the “diminution of the influence of the will on the muscles,” and feeling is never affected.⁵¹

Parkinson cites two cases here to illustrate the misuse of the term shaking palsy; both come from “Dr. Kirkland, in his commentary on Apoplectic and Paralytic Affections, &c.” The first example, initially related by Dr. Charlton and which Dr. Kirkland classified among the Shaking Palsies, involves a woman “of a sanguineous and robust constitution” who had an involuntary movement of the right hand, “occasioned by a fright:”

“[This fright] first brought on convulsion fits, and most excruciating pain in the stomach, which vanished on a sudden, and her right arm was instantaneously flung into an involuntary and perpetual motion, like the swing of a pendulum, raising her hand, at every vibration, higher than her head; but if by any means whatever it was stopped; the pain in her stomach came on again, and convulsion fits were the certain consequence, which went off when the vibration of her hand returned.”⁵²

Dr. Kirkland’s second case involves illness in a boy of about twelve or thirteen years old, “which the Doctor [Kirkland] designates as ‘A Shaking Palsy,’ apparently from worms.”

“A poor boy, about twelve or thirteen years of age, was seized by a Shaking Palsy. His legs became useless, and together with his head and hands, were in continual agitation; after many weeks trial of various remedies, my assistance was desired.

His bowels being cleared, I ordered him a grain of Opium in the gum pill; and in three or four days the shaking had nearly left him.”⁵³

By pursuing this plan, Parkinson adds, “the medicine providing a vermifuge, he could soon walk and was returned to perfect health.” Parkinson appears here to be mostly

⁵¹ Parkinson, *Essay*, p. 28. Parkinson’s view of how the brain and nerves work appears later in the *Essay*; here he is implicitly differentiating his concept of the shaking palsy from the kinds of palsy in which an extremity that is either paralyzed or tremulous also loses sensation.

⁵² Dr. Charlton is Walter Charl[e]ton (1620-1707). Parkinson, *Essay*, p. 29.

⁵³ Parkinson, *Essay*, pp. 29-30.

interested in the description of the disease itself; he does not question, or maybe is not terribly interested in, the attribution of this disease to worms.⁵⁴ His point is that the disease should be categorized properly, and that it should not be termed shaking palsy.

Parkinson says of these cases only that they differ so much from the cases of shaking palsy he himself has provided “as to oppose their being classed together.” The first, he says, “more properly belongs to the genus *Convulsio* of Cullen, or to *Hieranosos* of Linnaeus and Vogel.”⁵⁵ The second “refers to that class of proteal forms of disease, generated by a state of *primae viae*, sympathetically affecting the nervous influence in a distant part of the body.”⁵⁶

Though Parkinson does elaborate, both of these cases differ from what he calls the shaking palsy in that they came on suddenly and resolved after a number of weeks; none of the cases of what Parkinson calls the shaking palsy appears suddenly or improves at all. Parkinson does not mention the boy’s loss of speech, as described by Kirkland, but it too differentiates the boy’s illness from Parkinson’s characterization of the shaking palsy, which does not affect the ability to speak, but only the strength of the voice.

Parkinson next differentiates the shaking palsy from “those species of passive tremblings to which the term Shaking Palsies has frequently been applied,” and he lists examples:

⁵⁴ Parkinson, *Essay*, pp. 29-31. Dr. Kirkland’s original description of this case includes details not mentioned by Parkinson: aside from the agitation of his arms and legs, the boy “was incapable of speaking a single word for several weeks afterward; in which time his father told me, that many small worms crept from him every night when in bed. . . [he] got well by the medicines he was pursuing, which, in this instance, approved a vermifuge. The last time I saw him, I had the pleasure of hearing him talk very well.” Thomas Kirkland, *A Commentary on Apoplectic and Paralytic Affections. And on Diseases Connected with Them* (London: Printed for William Dawson, No. 7 Paternoster-Row, Cheapside, 1792), pp. 122-3. Both of these cases are in Part II, Section III, entitled “On the Cure of the True Palsy.”

⁵⁵ In *Genera Morborum*, Linnaeus placed the condition he called *Hierasonos*, indicating epilepsy, under the larger category of diseases of motion (*Genus VII, Motorii*), under the heading “*Agitorii*.” “*Hieranosos: Corporis agitatio continua, indolens, convulsiva, cum sensibilitate*.” Linnaeus, *Genera Morborum*, p. 17. William Cullen explicates the usage by Linnaeus and Vogel in his *Nosology*, pp 104-5.

⁵⁶ Discussing “*primae viae*,” Parkinson is referring to routes of evacuation, including via the bowels.

“These are, *tremor temulentus*, the trembling consequent to indulgence in the drinking of spirituous liquors; that which proceeds from the immoderate employment of tea or coffee; that which appears to be dependent on advanced age; and all those tremblings which proceed from the various circumstances which induce a diminution of power in the nervous system.”

But these kinds of tremblings, he says, are all observably different from that seen in the shaking palsy; in these tremblings, if the limb is supported, the trembling ceases. “In the real Shaking Palsy the reverse of this occurs, the agitation continues in full force whilst the limb is at rest and unemployed.”⁵⁷

In this section differentiating the shaking palsy from other named conditions, Parkinson wrestles with the conceptual boundaries of the disease he is positing; he attempts to discern where it ends and other species of disease, other namable and named disease entities, begin. Bounding the disease concept in this way requires establishing criteria that separate the disease entities, as he does here. Such bounding serves to separate, and potentially abstract, disease concepts from each other. But it does not suffice for showing the range of ways the specific disease might manifest in individual sufferers; that is, in people with different personal histories, constitutions, and preexisting bodily weaknesses.

The tension remains, then, between the disease as an abstraction, a somewhat theoretical entity, and the disease as a lived illness in a particular person. The question is how a medical practitioner can recognize the abstract disease entity through the necessarily individualized symptoms of a particular person. In the context of an ontologic view of disease, the question is how a practitioner can mentally screen out signs and symptoms of other specific diseases, recognizing them as such, in a way that leaves the

⁵⁷ Parkinson, *Essay*, p. 32.

manifestations of the disease in question isolated and highlighted, in a sense, for interrogation.

If no tension existed between the idealized disease and the slightly different way the disease manifests in different people, depending on their circumstances, Parkinson would not have needed to include several individual cases as illustrations. His first individual case, coinciding so closely as it did with the general ‘History’ of the disease, would have sufficed. But whereas the ‘History’ and Case I show the elements that all cases share, or the essential character of the disease, the subsequent individual cases show its variations and its different manifestations at different stages, linking the rather abstract disease picture to the experience and appearance of individual sufferers.

This individuality emerges most clearly in Parkinson’s final, and by far his longest, case, Case VI, one that Parkinson says he observed after observing the first five cases.⁵⁸ The sufferer was a temperate 72-year-old man with nothing in his history that would seem to predispose him to the malady. He viewed his illness as “incidental upon his advanced age” rather than as something requiring medical attention. Twenty years before, he had had severe lumbago, which lasted “some time.” The first symptoms suggestive to Parkinson of the shaking palsy had come on eleven or twelve years earlier: weakness in the left hand and arm, and soon thereafter, trembling. Three years later, the right arm was affected.

“ . . . and soon afterwards the convulsive motions affected the whole body, and began to interrupt the speech. In about three years from that time the legs became affected . . .

About a year since, on waking in the night, he found that he had nearly lost the use of the right side, and that the face was much drawn to the left side. His medical attendant saw him the following day, when he found him languid, with a small and quick pulse, and without pain in the head or disposition to sleep.

⁵⁸ Case VI is recounted in Parkinson, *Essay*, pp. 14-18.

Nothing more therefore was done than to promote the action of the bowels, and apply a blister to the back of the neck, and in about a fortnight the limbs had entirely recovered from their palsied state. During the time of their having remained in this state, neither the arm nor the leg of the paralytic side was in the least affected with the tremulous agitation; but as their paralyzed state was removed, the shaking returned.”

Here, the man in the case experiences something that is not part of the shaking palsy as Parkinson describes it. It is a unilateral paralysis that stops the limb’s shaking; when the paralysis resolves, the shaking resumes.

Though he terms this paralysis a palsy, Parkinson does not treat this temporary condition as part of the man’s shaking palsy. Instead, he essentially separates the two conditions, looking only at the temporary palsy’s effect on the shaking palsy, and treating it as an epiphenomenon that temporarily impedes, or perhaps masks, the underlying progressing disease. The chronic disease, manifested by the shaking, is the same before and after the temporary perturbation. Where in a more constitutional medicine this paralysis might be given the same kind of weight as the shaking, here it is uncoupled from the disease concept and, regardless of whether it is a true epiphenomenon or another separate disease, it is addressed no further. By this point, Parkinson has decided which symptoms can be seen part of the disease and which cannot.

Though this sounds simple, Parkinson’s Case IV presents a different picture of how difficult it actually was for him, during the process of delineating this new disease, to discern what were manifestations or causes of the disease and what were unrelated phenomena:

“The next case which presented itself was that of a gentleman about fifty-five years, who had first experienced the trembling of the arms about five years before. His application was on account of a considerable degree of inflammation over the lower ribs of the left side, which terminated in the formation of matter beneath the fascia. About a pint [of pus] was removed on making the necessary opening; and

a considerable quantity discharged daily for two or three weeks. On his recovery from this, no change appeared to have taken place in his original complaint; and the opportunity of learning its future progress was lost by his removal to a distant part of the country.”⁵⁹

Here, Parkinson’s specifies that draining pus from a patient’s chest did not rid the man of the shaking palsy. That he had considered that it might suggests how inchoate his formulation of the disease still remained at the time he saw this man.

Case VI also includes something else that is absent from the other cases: what the shaking feels like to the sufferer. After Parkinson describes how this man’s shaking palsy appears in the present, he describes the man’s experience of the disease:

“At present he is almost constantly troubled with the agitation, which he describes as generally commencing in a slight degree, and gradually increasing, until it arises to such a height as to shake the room; when, by a sudden and somewhat violent change of posture, he is almost always able to stop it. But very soon afterwards it will commence in some other limb, in a small degree, and gradually increase in violence; but he does not remember the thus checking of it, to have been followed by any injurious effect. When the agitation had not been thus interrupted, he stated, that it gradually extended through all the limbs, and at last affected the whole trunk.”

Here, the patient is describing the same symptoms that Parkinson has described as an observer. The patient then demonstrates what he has described:

“To illustrate his observation as to the power of suspending the motion by a sudden change of posture, he, being then just come in from a walk, with every limb shaking, threw himself rather violently into a chair, and said, “Now I am as well as ever I was in my life.” The shaking completely stopped; but returned within two minutes’ time.”⁶⁰

This man was already disabled by the disease, possessing “but little power in giving a required direction to the motions of any part.” He was scarcely able to feed himself, and he had written “hardly intelligibly for the last three years; and at present could not write at all.” The man’s attendants observed that “of late the trembling would sometimes begin

⁵⁹ Parkinson, *Essay*, p. 13

⁶⁰ Parkinson, *Essay*, pp. 16-17.

in his sleep, and increase until it wakened him when he always was in a state of alarm.”

Parkinson asked if he was afraid of falling:

“On being asked if he walked under much apprehension of falling forwards? He said he suffered much from it; and replied in the affirmative to the question, whether he experienced any difficulty in restraining himself from getting into a running pace? It being asked, if whilst walking he felt much apprehension from the difficulty of raising his feet if he saw a rising pebble in his path? he avowed, in a strong manner, his alarm on such occasions; and it was observed by his wife, that she believed, that in walking across the room, he would consider as a difficulty the having to step over a pin.”

Here, Parkinson incorporates not only the man’s narrative, but also that of his wife and attendants; he also inserts himself, demonstrating the quality of the conversation, or interview, by reporting not only the man’s history but also his own questions.

In this case, the patient’s narrative is not simply the patient’s narrative; it is guided by the questions Parkinson asks. And what Parkinson asks is guided by his preexisting concept of the disease he is positing. Parkinson is eliciting the patient’s story, but he is also asking leading questions. He is filtering each of the patient’s admittedly qualitative responses according to how consistent it is with the disease concept he is applying to it. The uniqueness of the patient’s experience and story are thus incorporated into a narrative of the specific disease in a dialectical kind of way, with the patient’s individual experience and the abstract disease entity meeting in the form of a guided narrative.

In its level of detail, this case forms a kind of mirror image to the composite, or ideal, case described in the ‘History.’ The two long cases essentially bookend the other five. Where the ‘History’ represents a prototypic case of the disease and distills its essential features, Case VI represents the lived disease in a particular person who

experiences other medical problems, including a temporary paralysis and a remote history of lumbago, as well.

Owsei Temkin once noted the continuing tension over time between ontological and physiological views of disease: that at no time has there ever been a complete paradigm shift from a thoroughly constitutional, individual, or physiologic view of disease to a thoroughly pathology-driven, ontologic one, in which disease existed completely outside their sufferers. Instead, both views of disease have always been present to a degree, with the balance of emphasis shifting back and forth over time.⁶¹ If there is no way to generalize about disease, and if it is completely individual, there can be no tried science of diagnosis and treatment. If there is no room for the individual in the science of disease, the very real variation between individual sufferers is masked, and the sufferer becomes invisible. The contrast between Parkinson's 'History' and Case I on the one hand and Case VI on the other highlights this tension and its attempted resolution.

Like the gardener in Case I, the man in Case VI suffers from just about all the symptoms described in the 'History.' While in Case I, Parkinson notes that almost "every circumstance noted in the [History], was observed," the gardener's individual, experienced disease is not really described. Case VI, in contrast, incorporates several people's narratives and conveys the picture of the specific disease in a particular person, but without using constitutional language. Even the man's other medical problems—the temporary paralysis, the head drawn to one side—are not allowed to muddy the picture of his shaking palsy. In a sense, this case serves to reconcile specific diseases with individual sufferers, the ontological with the physiological. Yes, the person with shaking palsy may have symptoms that do not accord with the disease, Parkinson suggests, but

⁶¹ Temkin, "The Scientific Approach to Disease," pp. 441-455.

they need not impede the practitioner's ability to recognize the disease, diagnose it, and apply the proper name to it.⁶²

Later readers of the *Essay* have often wondered why several of his six cases were people seen on the street, speculating that the rarity of the disease meant that too few sufferers consulted Parkinson in his practice to allow him to see the shared features of their conditions. But existing records of problems for which patients consulted medical practitioners in this period, including casebooks, billing logs and problem lists, rarely mention gait abnormalities or tremors. They appear not to have been seen as problems amenable to, or even appropriate *per se*, for general medical care, frustrating though they may have been.⁶³ These were not the problems for which people ordinarily sought medical attention. But neither the rarity of the disease nor the lack of medical consultation for these problems is likely the reason that so many of Parkinson's cases were observed on the street.

The more likely reason is that the street is where one *could* see them, in the sense of being able to observe the distinctive features of their movements, and particularly of their gait. In the several settings of his medical practice, including his home and shop, patients' homes, the workhouse, the workhouse dispensary, and madhouses, Parkinson would have been unlikely to see people walking much. In many cases, he would have

⁶² Charles Rosenberg discusses the centrality of the diagnostic process in "The Tyranny of Diagnosis," p. 241. Quoting William Cullen's textbook of nosology ["Everyone must acknowledge the difficulty of distinguishing diseases, but in most cases, the possibility must also be allowed; for whoever denies this, may as well deny that there is such a thing as the medical art"], Rosenberg notes, "Disease categories have, that is, always linked knowledge and practice, necessary mechanisms for moving between the idiosyncratic and the generalizable, between art and science, between the subjective and formally objective. And the physician's skills have, as Cullen implied, always turned on differentiating among available clinical pictures."

⁶³ See Chapter 2, above, for a description of the kinds of problems encountered by general medical practitioners at this time. See also Irvine Loudon, *Medical Care and the General Practitioner, 1750-1850* (Oxford: Oxford University Press, 1986), especially the chapters on medical surgical practice.

been seeing people who were seated or in bed. Much of the time he would have been visiting them at their homes. There, and in a dispensary, they might have been already seated when he saw them. Many workhouse patients were gravely ill, severe illness being a criterion for inpatient rather than outpatient care, and possibly unable to do much walking. In institutional settings, he would likely have been the one to be walking, from building to building and bed to bed, rather than having the patients move. Though he would easily have been able to observe the shaking palsy's tremor in these settings, that was only one sign of the disease he was postulating, and it would have been less distinctive, more difficult to distinguish from the many other kinds of tremor, than the distinctive gait would have been from other kinds of lameness.

The peculiar festinating gait, much more distinctive and rare, could be seen only in someone who was actually walking, and not in someone already too frail to walk, or in someone who was sitting down for a consultation, or who was confined to bed by illness. It was the characteristic gait of the shaking palsy that was, visually speaking, its most distinctive feature, both in the sense of uniqueness and in the sense of extreme oddness. As Parkinson noted, this running gait requires a bit of time and distance to manifest fully; the increased hurrying and eventual instability need time and distance for ramping up, so to speak, before they become fully visible. In most of the settings in which he saw patients, it would not have been fully viewable.

The new disease that Parkinson was defining included both the tremor and the gait. For Parkinson, a person manifesting an isolated tremor did not, yet, have the shaking palsy; it was the combination that was important. And this combination could only have been observed in a place where the gait could fully manifest itself: in people who were

still able to walk and in whom the process of festination could be easily seen. In Shoreditch, this was the street. It is likely that Parkinson spent a good deal of time on the street himself, walking from building to building in the course of his work. These walks would have provided excellent opportunities for observing the people there, most of whom, in early nineteenth-century Shoreditch, would have been men. And Shoreditch, being home to the population so highly at risk for disorders of mobility in general, and for the shaking palsy in particular, would have been the ideal place in London, and perhaps in England, for seeing this unusual gait.

It is frequently noted in histories of Parkinson's disease that three of Parkinson's six cases were seen on the street. But it is rarely noted that two of these cases were found among the impoverished and dependent, the population that was so concentrated in Shoreditch. Case II's residence in "a poor-house" was noted above. Case III, described above as "of a remarkable athletic frame," was also impoverished and dependent:

"He stated, that he had been a sailor, and attributed his complaints to having been for several months confined in a Spanish prison, where he had, during the whole period of his confinement, lain upon the bare damp earth. The disease had here continued so long, and made such progress, as to afford little or no prospect of relief. He besides was a poor mendicant, requiring as well as the means of medical experiments, those collateral aids he could only obtain in an hospital. He was therefore recommended to make trial if any relief could, in that mode, be yielded him. The poor man, however, appeared to be by no means disposed to make the experiment."⁶⁴

This man, in spite of his strength, required not only the medical care but also "those collateral aids he could only find in a hospital;" that is, in an inpatient setting.

All six of the individual cases of shaking palsy that Parkinson describes are men; he gives no examples of women with the shaking palsy, nor does he address how, or even

⁶⁴ Parkinson, *Essay*, p. 12. The word "hospital," as noted in Chapter 2, sometimes denoted an almshouse or poorhouse, as in the cases of the Haberdashers' Hospital in Shoreditch.

whether, the disease might manifest differently in a woman, or even whether women contract the disease.⁶⁵ The question, assuming that women do have the disease, is why they are omitted here, or perhaps more relevant, why he might not have observed the disease in women. He did have female patients, and they appear in other of his case reports.⁶⁶

One possible reason is that when the disease was present in women, it may, more for social and cultural than for biological reasons, not have been quite so visible as it was in men. At the risk of oversimplifying what would have been a complicated issue, the disease may have shared some characteristics with the way femininity, specifically as it entailed the will, was enacted and embodied at the time. In the late eighteenth and early nineteenth centuries, when there was a gendered quality to the understanding of the action of the will, forceful or willful activity was understood as being more masculine in nature, possibly rendering a dearth or diminution of will both more visible and more problematic in a man, and more normal in a woman. Difficulty in making one's body obey the mind's calls to activity might not so easily be noticed, or fretted about, in a woman. A slightly flexed or bowed posture might appear receptive, or even subservient, rather than pathological. And as women's roles became a bit more domestic and differentiated in terms of labor from men's during this period, there was a tendency toward more domestic endeavors for women, and perhaps less work that took women

⁶⁵ There is still some debate about whether the incidence of Parkinson's disease is slightly higher in men or equally distributed between men and women. See Lonneke M. L. de Lau and Monique M. B. Breteler, "Epidemiology of Parkinson's Disease," *Lancet Neurology* 2006; 5: 525-35. This does not mean that the incidence of the shaking palsy was equal in men and women in Parkinson's time, but there is no evidence that it was not.

⁶⁶ See, for example, his description of a case of hydrophobia in a young woman, "Cases of Hydrophobia," *London Medical Repository* 1814; I: 289-92, and of a case of tetanus in a middle-aged woman, "A Case of Trismus, Successfully Treated," by Mr. John Parkinson, Surgeon, Communicated by James Parkinson, Esq., *Medico-Chirurgical Transactions* 1811; 2: 293-7.

onto the streets, where their gait could be observed, and perhaps more use of carriages and other conveyances.⁶⁷

The second possibility involves clothing, and particularly stays, the precursors of corsets, some variant of which most women wore. Women of all classes wore stays. This is not to say that all women would have worn them, but that any woman might have. Stays would have fostered upright posture, straightening up women who tended to slouch, through the compression they provided. It would have been harder to breathe slouched. In this way, they would have masked the shaking palsy's stooped posture. Histories of costume suggest that stays became increasingly confining over the first half of the nineteenth century, incorporating metal eyelets for the stays' laces, to allow for forceful tugging of the stays' laces.⁶⁸ And women's long skirts might have prevented, or at least

⁶⁷ Thanks to Mary Fissell for insights about this issue in the larger context of the history of gender. Peter A. Kempster, Brian Hurwitz, and Andrew J. Lees, in "A New Look at James Parkinson's *Essay on the Shaking Palsy*, *Neurology* 2007; 69: 482-5, note that "There is historical evidence that fewer women than men ventured to walk the filthy, inhospitable streets of early 19th century London," p. 484.

⁶⁸ See, for example, Valerie Cumming, C. W. Cunnington and P. E. Cunnington, *The Dictionary of Fashion History* (Oxford and New York: Berg, 2010), which defines "stays" as 'the earlier name for corset' (p. 194). The book's entry for corsets, pp. 55-56, pertaining to the period Parkinson was working, defines these garments as follows: "Corset, corse. Period: late 18th century to mid—20th century. A change of usage encompassing corset and stays and applied to an undergarment with whalebone or steel ribs encircling the chest and compressing the natural waist. The French word "corset" was beginning to be used as a refinement for "stays" at the close of the 18th century, but both terms were in common use . . . Period: 1800-1810: The long corset: this supported the breasts, covered the hips and was laced up the back. Period: 1820s: The demi-corset: eight to ten inches long with light whalebones, worn by day for domestic duties. Period: 1820s: The short corset: metal-bound eyelet holes were introduced to the back-lacing. The authors quote a source, written in 1828: "Stays are bound with iron in the holes through which the laces are drawn, so as to bear the tremendous tugging which is intended to reduce so important a part of the human frame to a third of its natural proportion." They do not specify whether women of different social classes and occupations would all have been likely to wear these garments. This issue is addressed in Phillis Cunnington and Catherine Lucas, *Occupational Costume in England from the Eleventh Century to 1914* (London: Adam & Charles Black, 1967), in which Plate 23, following page 160, shows a Milk-girl with "stays, over décolleté white shift; short skirt, top-hat. 1820," which is taken from a drawing and engraving by T. L. Busby found in T. L. Busby, *Costume of the Lower Orders* (1835). Cunnington and Lucas also quote a passage (p. 48) from Sir Frederick Eden, *State of the Poor*, that "sums up the clothing of Cumberland working women in about 1745" and includes, along with two petticoats, coarse woolen stockings, and a linen shift, "stays, or rather [under] bodices." The suggestion is, then that women of different classes would have been wearing stays; this would have included women with occupations, who might be seen on the streets.

obscured, instances of the shaking palsy's running gait, making it difficult for an observer to see what the walkers' lower extremities were doing.

The signs and symptoms that Parkinson formulated as the shaking palsy are not identical to those that are now seen as constituting Parkinson's disease, although they are close. Many later writers have speculated about why Parkinson omitted muscular rigidity, now considered a hallmark of the disease. The most common hypothesis is that he missed it because he did not perform the kind of physical examination that would have detected it. Parkinson did perform physical examinations, as Chapter 3 showed, though the idea that he did not has been remarkably persistent in writings about him in the neurological literature.⁶⁹ Examining muscles and bones was part of the work of surgeons, something they did often in evaluating injuries and disease. Parkinson not only performed physical

⁶⁹ For examples of writers' assumptions that Parkinson did not perform physical examinations, see, for example, aside from the remarks of Roy Porter quoted in Chapter 3: Jan M. Hesselink, "Evolution of Concepts and Definitions of Parkinson's Disease since 1817," *Journal of the History of the Neurosciences* 1996; 2(2): 200-207, p. 201: "In the first half of the nineteenth century physical examinations of patients were virtually non-existent. Patients suffering from neurologic disorders were only observed. Parkinson himself saw all the patients he described in his monograph 'passing in the streets,'" John M. S. Pearce, *Fragments of Neurological History* (London: Imperial College Press, 2003), p. 419: "[Parkinson's] descriptions leave one in doubt as to whether he examined his patients in the conventional fashion;" F. Clifford Rose, "Parkinsonism Since Parkinson," in A.D. Morris, *James Parkinson: His Life and Times*, edited by F. Clifford Rose (Boston, Basel and Berlin: Birkhäuser, 1989), pp. 176-87, p. 178: "As with Trousseau (1867) before him, Charcot (1868) pointed out that Parkinson had not reported muscle rigidity in spite of noting the flexed posture of the body due to the differential increase of tone in spinal flexors and extensors. When Parkinson wrote his *Essay*, the assessment of tone was not yet part of the clinical examination, since it was only in the middle of the last century that the examination of the nervous system moved from simple observation to specific feats, e.g., Romberg's sign;" Francis Schiller, "Parkinsonian Rigidity: The First Hundred-and-One Years," *History and Philosophy of the Life Sciences* 1986; 8: 221-36, p. 222: "[about why there was such a delay in recognizing the rigidity of the shaking palsy] The answer is twofold: infrequency of the condition and, also, by our standards, a lack of examining muscle tone;" Andrew J. Lees, "Unresolved Issues Relating to the Shaking Palsy on the Celebration of James Parkinson's 250th Birthday," *Movement Disorders* 2007; 22, Supplement 17: S327-S334, p. S329: "Parkinson . . . should be excused for missing the cogwheel phenomenon and lead pipe rigidity, as the physical examination of the nervous system was not yet part of the doctors' clinical method;" and Kenneth Laurence Tyler, "A History of Parkinson's Disease," in William C. Koller, ed., *Handbook of Parkinson's Disease*, 2nd Edition (New York, Basel, and Hong Kong: Marcel Dekker, Inc., 1992), p. 13: "There is no real evidence that Parkinson actually examined any of his patients. This may account for his apparent failure to appreciate features such as the degree of muscular rigidity or the presence of 'cogwheeling.'"

examinations; he described finding muscle rigidity in his writings, four of which have been quoted in other contexts above.

The first of these occurred during the attempt to resuscitate Bryan Maxey, which Parkinson's father reported to the Humane Society, and which included an attempt to open Maxey's rigidly closed jaws.⁷⁰ In his article about lightning, Parkinson commented on the rigidity of the neck of the first man hit by lightning, noting that his attendants, who would have included Parkinson, were unable to move it.⁷¹ In the same article, in the case of the man whose eyelids were in spasm, Parkinson describes actually requesting permission to perform an examination, which involved trying to open the rigidly closed eyes.⁷² And in his description of laborers subject to gout, he describes the disease in terms of both rigidity and want of flexibility.⁷³ Even in his discussion of the shaking palsy itself, he cites Sauvages's observation about the inflexibility of the muscle fibers in people manifesting *scelotyrbe festinans*. It is unclear why rigidity was not explicitly part of Parkinson's disease picture, but it was not because he did not examine patients or know what stiff and rigid muscles felt like.

⁷⁰ John Parkinson notes, "I immediately, with my son, hastened to the place (about a quarter of a mile distant from my house[.]). We there found the poor fellow, to all outward appearances dead: the jaw so fixed, as to require the utmost force to move it[.]" John Parkinson, "Case CLIV. No. 41, To James Horsfall, esq.," in William Hawes, *Annual Report, Society for the Recovery of Persons Apparently Drowned. Instituted M. DCC. LXXIV* (London: The Royal Humane Society, 1799), pp. 41-3, p. 41.

⁷¹ "His head was bent considerably backwards, in which state it remained immoveable, notwithstanding his endeavors, and those of his attendants, to bring it forward." James Parkinson, "Some Account of the Effects of Lightning, by Mr. J. Parkinson, of Hoxton, Surgeon, and F. M. S.," *Memoirs of the Medical Society of London* 1789; 2: 493-507, p. 495.

⁷² "The eyelids were very closely shut, and had rather the appearance of a flat than a convex surface, which induced me to expect that I should find the eyes themselves considerably lessened in their dimensions, if not totally destroyed. After several unsuccessful attempts to force open the eyelids, I was so entirely foiled, that I should have desisted, had not the man himself anxiously pressed me to make another trial[.]" Parkinson, "Lightning," pp. 504-5.

⁷³ "After some time most of the joints, and with the rest, those of the spine, partake of the prevailing disposition to rigidity; so that at last the flexibility for performing the most simple offices in life is lost[.]" James Parkinson, *Observations on the Nature and Cure of Gout; on Nodes of the Joints and On the Influence of Certain Articles of Diet in Gout, Rheumatism, and Gravel* (London: H. D. Symonds, Paternoster Row, 1805), p. 72.

The situation is a bit different with Parkinson's describing the shaking palsy as leaving the intellects unimpaired and for describing its characteristic tremor as persisting in sleep, neither of which accords with the present view of the disease. In the *Essay's* Case VI, the agitation of the limbs during sleep is reportedly sufficient to wake the man up. It is likely that Parkinson never actually observed the man sleeping, and it is possible that if he had, he would not have seen the limbs' abnormal movements as the same as their resting tremor during wakefulness. In any event, he was aware of the possibility of tremors present during wakefulness being extinguished during sleep; his shorthand notes of John Hunter's lectures include the description of such a case.⁷⁴

Parkinson also specified that the shaking palsy leaves the "senses and the intellects uninjured," while the disease is now considered a frequently dementing condition. It is not always a dementing condition, however, and it is possible that the particular people suffering from the shaking palsy that Parkinson observed either did not have intellectual impairment or that it was not advanced enough to be obvious, especially in a brief conversation on the street. As with the possibility of a tremor abating during sleep, however, Parkinson was aware of other possibilities than those he described in the *Essay*. He had considerable experience with both madness and the kind of acquired late-life intellectual impairment he called "fatuity." He made a point of differentiating them,

⁷⁴ In his transcription of John Hunter's surgical lectures appears the case of a woman with a tremor, though a different kind of tremor from that of the shaking palsy: "Case.—A lady, at the age of seventy-one, had universal palsy: every part of the body shook which was not fully supported. The muscles of respirations were so affected, that respirations was with difficulty effected; but in sleep the vibratory motions of the muscles ceased, and the respiration was performed more equably: any endeavor of the will to alter these morbid motions increased them." James Parkinson, *Hunterian Reminiscences; Being the Substance of a Course of Lectures on the Principles and Practice of Surgery Delivered by the Late Mr. John Hunter, in the Year 1785: Taken in Short-Hand, and Afterwards Fairly Transcribed, by the Late Mr. James Parkinson, Author of "Organic Remains of a Former World," &c., Edited by his Son, J.W.K. Parkinson, Fellow of the Royal College of Surgeons, in London; by Whom Are Appended Illustrative Notes* (London: Sherwood, Gilbert, and Piper, Paternoster Row, 1833), p. 37. Hunter's case is discussed in Robert D. Currier, "Did John Hunter Give James Parkinson an Idea?" *Archives of Neurology* 1996; 53(4): 377-8.

and of further differentiating two types of fatuity: the kind that primarily affects the memory and the kind that primarily affects the reason.⁷⁵

In each case in which he had the opportunity to interview the sufferer, Parkinson includes the element of time, conveying the picture of a disease consisting of signs and symptoms that appear in a certain order and very slowly progress. Even in the cases he merely observed on the street, the time course is implicit. It is the time course that ties the disparate symptoms together into a disease for Parkinson; time is a necessary part of the disease concept. Without this clear idea of sequence and progression, it might have seemed equally plausible that the long gap between the onset of one manifestation and another indicated that they were not connected, if indeed the idea of connecting the manifestations arose in the first place. Both the long intervals and the variety of the signs and symptoms potentially obscured the relationship among them. A likely possibility is that Parkinson observed the whole course of the disease's unfolding in a single person, or maybe two, carefully noting its features over time but not yet, in the Latourian sense, knowing that it was an entity. Case VI is recounted in a way that suggests considerable familiarity, so it is possible that its sufferer was someone Parkinson knew well, but Parkinson specifies that his case "presented itself to observation since the above-mentioned [five other cases]," suggesting that watching his case unfold may have been corroborative rather than productive of initial insight.⁷⁶

⁷⁵ In a brief tract called *Observations on the Act for Regulating Madhouses*, Parkinson indicates that he is familiar with what he calls 'fatuity,' differentiating it from madness per se: "[T]he power of reasoning may remain, whilst the memory may be remarkably impaired; or the memory may be but little injured, whilst the faculty of reasoning can be but very imperfectly exercised; or both failing, will reciprocally injure each other." James Parkinson, *Observations on the Act for Regulating Madhouses, and a Correction of the Statements of the Case of Benjamin Elliott, Convicted of Illegally Confining Mary Daintree; With Remarks Addressed to the Friends of Insane Persons* (London: Sherwood, Neely, and Jones, 1811), p. 13.

⁷⁶ Parkinson, *Essay*, p. 14.

The idea of a characteristic course for a disease's unfolding was not new with Parkinson; it was the concept of a natural course of disease that had allowed prognostication in the Hippocratic writings. And Sauvages, devising criteria for classifying diseases, incorporated the concepts of duration and course, acuteness and chronicity.⁷⁷ But what Parkinson conceptualized was different from earlier-described diseases in two ways: first, in the extreme length of time between the onset of the first symptoms and the onset of later symptoms, up to twelve years in one of his cases; and second, in the lack of narrative coherence in this lengthy sequence.⁷⁸ Nothing in a single patient's narrative would lead an observer to connect the signs and symptoms Parkinson observes; rather, they seem to appear somewhat randomly, unrelated to any predisposing cause or event. Instead of seeking narrative coherence to justify a claim that the symptoms are connected, Parkinson emphasizes the idea of sequence by showing cases of sufferers who are at different points along the continuum of the disease. He is intimating that he has witnessed the progression of this ordered sequence, repeatedly.

Later in the *Essay*, when discussing the possible benefits of early recognition and treatment, he explicitly describes the disease in terms of stages:

“It seldom happens that the agitation extends beyond the arms within the first two years; which period, therefore, if we were disposed to divide the disease into stages, might be said to comprise the first stage.”⁷⁹

⁷⁷ See Martin, “Sauvages's Nosology,” pp. 123-5

⁷⁸ Mary Fissell argues that patients at this time reached far back to past events in their lives to come to an autobiographical way of understanding illness, both seeking and seeing a continuity between actions in the remote past and illness in the present. This inclusion of long intervals in the disease concept is a bit different from what Parkinson was envisioning here: it was the disease process itself that developed over a long period of time, in a specific way, in people with very different personal histories. For Fissell's subjects, the person's unique past was a tool for understanding the course of the person's disease; for Parkinson, the disease took its course regardless of the person's individual history. See Mary Fissell, “The Disappearance of the Patient's Narrative and the Invention of Hospital Medicine,” in Roger French and Andrew Wear, eds., *British Medicine in the Age of Reform* (London and New York: Routledge, 1991), pp. 92-109, and *Patients, Power, and The Poor in Eighteenth-Century Bristol* (Cambridge: Cambridge University Press, 1991), pp. 33-6.

⁷⁹ Parkinson, *Essay*, p. 57.

Parkinson's envisioning the disease in terms of a gradual unfolding accorded less with the static categories of published taxonomies of disease than with the image of the gradual development of an organism, or with John Hunter's conceptualizing of disease in terms of physiological process.

Hunter depicted biological processes as acting in all parts of an organism, engendering a smoothly functioning whole.⁸⁰ His work on comparative anatomy allowed him to see structure and function as inextricably connected and also fostered his ability to see the variation of form in his compared specimens as existing along a spectrum, or along several different axes. Individual examples that varied from each other in subtle ways could thus be envisioned as a cluster of similar or analogous phenomena rather than as fixed species to place in such hierarchical frameworks as the branching Linnaean tree form. Such thinking about incremental variation in form and process applied equally well to remains of current animals and to fossils, to specimens from the present and the past.

Parkinson shared with Hunter an interest in fossils, and it is in his oryctological works that it is easiest to see the astonishing precision that characterized his observations. The three volumes of Parkinson's *Organic Remains of a Former World* are largely composed of description of the minutest details of fairly simple natural phenomena and tiny organisms. An example of the level of description in these books is this:

“Stellated tubipore, (*tubipora stellata*, Linn.) is described by Adrian Modeer as a fossil found in the Swedish Island, Gothland. It is formed by distinct tubes, combined in ranges, by many remote platforms; formed of horizontally disposed

⁸⁰ See Stephen Jacyna, “Physiological Principles in the Surgical Writings of John Hunter,” in Christopher Lawrence, ed., *Medical Theory, Surgical Practice: Studies in the History of Surgery* (London and NY: Routledge, 1992), pp. 135-152, p. 135. Jacyna states that Hunter's “discussion of bodily actions is pervaded by teleology. It is teleological not merely in the sense that he assumes the parts combine to create a functional whole; but also in the more direct sense that Hunter often ascribes *purposes* to the body and goes on to consider the means by which it endeavors to attain them,” p. 138.

plates, with radiating striae on their surfaces, and pierced for the passage of the tubes. This fossil, from the description, and from the plate which is given of it by Modeer, appears to be fully deserving to be considered as a distinct species. That curious species of communication between the several parts of the animal, which has been already noticed in the organ-pipe coral, as being kept up by the radiating tubuli, passing through the substance of the horizontally disposed plates, appearing in this species to be carried on by similar pipes passing through divided plates, or on the surface of the plates, forming on them the radiated striae just described.”⁸¹

A considerable proportion of the thousand or so pages of the *Organic Remains* is written at this level of detail. This passage demonstrates Parkinson’s attention to detail and also his thinking about what allows a type of organism to constitute a separate species, an enterprise analogous to what he was attempting in the *Essay*.

Parkinson does not use oryctological imagery in the *Essay*, but such imagery does occasionally appear elsewhere in his medical writing. In his book on gout, he compares a gouty tophus, or deposit, to a fossil shell. Describing the findings in an autopsy performed on a fifty-year-old man who had been a martyr to gout, Parkinson says,

“One of the great toes was found to be much enlarged, and upon dissection the first joint of it was found to be inclosed in a bed of chalk-like matter, like a fossil shell: but the bone itself was neither increased in size, nor altered in its texture.”⁸²

This passage suggests that Parkinson used the same faculty of observation in medicine and oryctology. The observational skills required to make minute distinctions between tiny fossils might also differentiate among the confusing array of tremors and abnormal gaits one encountered in Shoreditch, seeking and finding patterns among them.

Parkinson’s attention to form may also have helped him to distinguish the characteristic stooping posture of the shaking palsy from the common stooping of old age; gesture and

⁸¹ James Parkinson, *Organic Remains of a Former World. An Examination of the Mineralized Remains of the Vegetables and Animals of the Antediluvian World; Generally termed Extraneous Fossils*, volume II (London: M. A. Nattali, Second Edition, 1833; the first edition was published in 1807), p. 22.

⁸² Parkinson, *Observations on the Nature and Cure of Gout*, pp. 5-6.

posture too were part of the disease picture. His observing and thinking about fossils almost certainly informed his thinking about medicine, given his intense involvement with both during the same decades.⁸³

Ideas about transformability and continuity, traits he specifies for the shaking palsy, are also found scattered in the *Organic Remains*: the idea that something can retain its identity but look very different at different times:

“To what a remote period of past time, and to what astonishing changes on the structure of the surface, at least, of this globe, does this circumstance [the mineral changes in a fossil organism over time] direct our contemplation! A body, differing from any animal substance now known, has been formed, and by the energies of animal life, in the depths of the ocean of a former world; and is now found embedded in a rock, many miles inland, and at a considerable height above the sea . . . The substance, of which this body is composed, has undergone a most extraordinary change: originally formed chiefly of carbonic acid and lime, with a small portion of animal matter, it has now become a mass, in which, except perhaps a portion of animal matter, these substances are no longer to be found: the space of which was formerly allotted to them now being filled almost entirely with the earth of flint; and to add to the wonder, the silicified mass is found embedded in lime.”⁸⁴

Such passages suggest a mobility of thought and vision, consistent with the vision that would have been needed for someone to see, in the sense of both perceiving and conceiving, a disease like the shaking palsy.

Parkinson’s argument that the shaking palsy is a previously unrecognized disease, and his naming and classification of it, are based completely on his own observation of

⁸³ Several works not explicitly about Parkinson argue for a livelier interaction among intellectual realms than Parkinson’s biographers suggest: Adrian Desmond, *The Politics of Evolution: Morphology, Medicine, and Reform in Radical London* (Chicago: University of Chicago Press, 1989) and *Archetypes and Ancestors: Palaeontology in Victorian London, 1850-1875* (Chicago: University of Chicago Press, 1984), both of which address a slightly later time period. Philip Sloane, “The Gaze of Natural History,” pp. 112-151, and Roy Porter, “Medical Science and Human Science in the Enlightenment,” pp. 53-87, both in Christopher Fox, Roy Porter, and Robert Woker, *Inventing Human Science: Eighteenth-Century Domains* (Berkeley, Los Angeles, and London: University of California Press, 1995), provide detail about the intersecting facets of the Enlightenment cultures of science and medicine in Parkinson’s time that are omitted in the biographies.

⁸⁴ Parkinson, *Organic Remains*, vol. II, p. 19.

the disease in several people, and then on his discovery, after a perusal of the literature, that the disease had not been characterized before. In a way that Hunter would have applauded, the formulation of the disease relies on what Parkinson has observed for himself and, in the tradition of Sydenham, this formulation relies very little on what can be seen as theory. His argument that the disease is real says nothing about possible etiology or treatment; it does not explore the nature or mechanism of movement; and it does not address where he believes the disease is seated.

It is only in the subsequent chapters, after he has completed his argument in favor of the shaking palsy as a true disease, that he explores what might be its deeper nature: what might be causing it, where in the body its seat might be located, and how it might be treated. Parkinson admits he does not know for sure where the seat of the disease is. He cannot provide a pathological explanation for the disease or buttress his argument with evidence that the disease is localized to a particular organ or place. Because no one has written on the disease before him, there are no relevant writings on pathology to consult, and he does not report the results of post-mortem examinations performed on anyone who suffered from the disease. In fact, as he ends his *Essay*, all his cases may still be alive, though if Case I truly accorded with the ‘History’ in all its manifestations, it would have ended in death.⁸⁵ The lack of a discovered lesion that would explain the shaking palsy worried him enough to address preemptively in the preface of the *Essay*:

“It is . . . necessary, that some conciliatory explanation should be offered for the present publication: in which, it is acknowledged, that mere conjecture takes the

⁸⁵ As noted in Chapter 3, the post-mortem evidence was not absent because Parkinson was incapable of performing the requisite autopsies. He performed post-mortem examinations and autopsies in the course of his practice, and he testified about his findings in at least three hearings at the Old Bailey.

place of experiment; and, that analogy is the substitute for anatomical examination, the only sure foundation for pathological knowledge.”⁸⁶

Parkinson thought in a localist way, hypothesizing about where the seat of the disease must be, basing his hypothesis on his understanding of movement, and assuming the shaking palsy must be, like the other palsies and tremblings from which he carefully distinguished the disease in the earlier chapters of the *Essay*, a problem of the nervous system.

Abnormal movement can be observed only in life, and when the abnormal movement affects the whole body, as it does in the shaking palsy, it cannot be anatomized easily.⁸⁷ Because there were no previously reported cases of the shaking palsy that included information about autopsy findings, Parkinson had to hypothesize about the pathology by analogy, reasoning from cases of diseases that were not the shaking palsy but that were similar to it. “Conjecture founded in analogy,” he says, “and an attentive consideration of the peculiar symptoms of the disease, have been the only guides that could be obtained for this research.”⁸⁸

Parkinson does not address here the mechanical aspects of movement or theories about muscle strength or locomotion; works about animal motion remain unmentioned.⁸⁹ He is also silent about how the nervous system works; writing about how the will to move is translated into action, and how the nervous system activates the muscles, he

⁸⁶Parkinson, *Essay*, p. i. It is worth noting that he describes anatomical examination here as the only sure foundation for pathological knowledge, but not the only foundation for knowledge.

⁸⁷ If he had believed that the relevant lesion would be easily found, he might have waited to publish the *Essay* until he or someone else had had the opportunity to search for it and locate it. But his preface and final chapter indicate that he felt some time urgency about publishing when he did. Parkinson was 62 years old in 1817, and he may have wanted to ensure that his work was as complete as he could make it.

⁸⁸ Parkinson, *Essay*, p. 33.

⁸⁹ Parkinson may have been worked with such works as Aristotle’s *De Motu Animalia* and Giovanni Borelli’s *De Motu Animalia* (Rome: A. Bembo, 1680) in the context of his oryctological work, but he does not cite them here.

speaks in general terms about nervous influence but does not discuss current theories about nerve function. Theories about what travels through the nerves is not the point for him in this work; the issue is locating potentially visible structure and lesions.⁹⁰

Parkinson first addresses the “supposed proximate cause” of the disease. That is, he assumes that the disease results from something physically impinging on a part of the nervous system, blocking the “nervous influence,” and he attempts to deduce the location of the impinging. He surmises that the problem is located not in the peripheral nerves but in part of the central nervous system, the *medulla spinalis* (spinal cord) in the upper cervical region, but, because it does not affect consciousness or the understanding, that it does not extend to the encephalon, or brain itself, via the *medulla oblongata* (the part of the brain that connects to the spinal cord):

“By the nature of the symptoms, we are taught, that the disease depends on some irregularity of the direction of the nervous influence; by the wide range of parts which are affected, that the injury is rather in the source of this influence than merely in the nerves of the parts; by the situation of the parts whose actions are impaired, and the order in which they become affected, that the proximate cause of the disease is in the medulla spinalis; and by the absence of any injury to the senses and to the intellect, that the morbid state does not extend to the encephalon.”⁹¹

Why the disease would affect the *medulla spinalis* remains unclear:

“Uncertainty existing as to the nature of the proximate cause of this disease, its remote causes must necessarily be referred to with indecision. Assuming however the state just mentioned as the proximate cause, it may be concluded that this may

⁹⁰ Parkinson does not discuss nerve function *per se* at all in this work. Ideas about how the nerves worked had undergone substantial change since he had published his article about lightning in 1789, and particularly following the publication of Luigi Galvani’s work on animal electricity in 1791. Galvani’s idea of nerve function as fundamentally electrical gradually superseded the older ideas that had remained relatively unchanged for centuries: “that messages of were transmitted through the lumen of hollow nerves, the medium being nervous force or power or nervous fluid, and that these messages mediated voluntary movement and sensation.” See Edwin Clarke and Stephen Jacyna, *Nineteenth-Century Origins of Neuroscientific Concepts* (Berkeley: University of California Press, 1987), pp. 157-67, p. 160.

⁹¹ Parkinson, *Essay*, p. 34.

be the result of injuries of the medulla itself, or the theca [fibrous covering] helping to form the canal in which it is inclosed.”⁹²

Parkinson next describes the vulnerability to injury of cervical *medulla spinalis*, but he notes that in none of his cited cases is there a history of injury to the area, or of “any fixed pain in early life in these parts.” Rather, “on the subject indeed of remote causes, no satisfactory accounts has [sic] yet been obtained from any of the sufferers.”

He next cites cases of known injury to the spinal cord: Percivall Pott’s cases of palsy resulting from deformities like curvature of the spine; and, a bit later, several examples described by Sir Everard Home in an article in the *Philosophical Transactions of the Royal Society*, about the effects of traumatic injury to the medulla [spinal cord].⁹³ He also cites a case of agitation of the limbs following treatment with mercury for venereal disease and prolonged exposure to “severely inclement weather.” And, noting that in two of his own cited cases of the shaking palsy, “symptoms of rheumatism had already existed,” he describes two other cases of rheumatism, both of which remitted after initial treatment.⁹⁴ In none of these examples were the resulting symptoms similar to those of the shaking palsy.

Parkinson is searching here for cases that are similar enough to the shaking palsy to give him hints about what may induce the disease, but the process ends up with him ruling out one case after another. The search for analogous cases does not turn up anything that is really like the shaking palsy he has described, and the cases of

⁹² Parkinson, *Essay*, p. 34.

⁹³ Home was the considerably younger brother-in-law, apprentice, biographer, and plagiarizer of John Hunter, who, as an executor to Hunter’s estate, burned many of Hunter’s papers.

⁹⁴ Parkinson, *Essay*, pp. 36-8 and 45-9. One of the cited cases of rheumatism occurred in a woman. Parkinson mentions that in two of his own reported cases of the shaking palsy, rheumatism had preceded the signs of the disease, and that in Case IV, severe rheumatic pain accompanied the disease.

impingement on the cervical spinal cord, his hypothesized site for the shaking palsy's lesion, do not have clinical manifestations that resemble the shaking palsy.

Parkinson devotes the most attention, seven full pages of a sixty-six-page book, to the case of the Count de Lordat “related by Dr. Maty, in the third volume of the *Medical Observations and Inquiries*.”⁹⁵ The case begins with a traumatic injury sustained in a coach accident when the Count “had the misfortune to be overturned from a pretty high and steep bank.” In his citation of the case, Parkinson italicizes signs and symptoms that are similar to those he has observed in the shaking palsy:

“ His head pitched against the top of the coach, and was bent from left to right. . . At first he felt a good deal of pain along the left side of his neck, but neither then, not at any other time, had he any faintings, vomitings, or giddiness.—On the sixth day he was let blood, on account of the pain in his shoulder and contusion of his hand, which were then the only symptoms he complained of, and of which he soon found himself relieved.—Towards the beginning of the following winter, he began to find *a small impediment in uttering some words, and his left arm appeared weaker*. In the following spring, having suffered considerably from the severities of the winter campaign, he found *the difficulty in speaking, and in moving his left arm, considerably increased* . . . In the beginning of the next spring . . . he became afflicted with *involuntary convulsive motions all over the body*. The left arm withered more and more, *a spitting began*, and now it was *with difficulty that he uttered a few words*.”

A year and a half later, Dr. Maty first saw the Count; Parkinson quotes him here:

“A more melancholy object I never beheld. The patient, naturally a handsome, middle-sized, sanguine man, of a cheerful disposition and an active mind, appeared much emaciated, stooping, and dejected. *He still walked alone with a cane, from one room to the other, but with great difficulty, and in a tottering manner*; his left hand and arm were much reduced, and would hardly perform any motion; *the right was somewhat benumbed, and he could scarcely lift it up to his head; his saliva was continually trickling out of his mouth, and he had neither the power of retaining it, nor of spitting it out freely*. What words he still could utter were monosyllables, and these came out, after much struggle, in a violent expiration . . . He took very little nourishment, could chew and swallow no solids . . . his senses, and the powers of his mind, unimpaired . . .”

⁹⁵ Maty's case is reported in M. Maty, *Medical Observations and Inquiries* 1769; 3: 257-73; Parkinson's discussion of the case is found in the *Essay*, pp. 38-45.

The Count died four years after his accident, at the age of thirty-nine. Dr. Maty reports in detail the results of an autopsy performed by Dr. Bellett and Mons. Sorbier. There was a great deal of abnormality in the brain, but Dr. Maty focuses most on the medulla oblongata, which was “greatly enlarged,” and the membranes surrounding the spinal marrow [spinal cord], which were “so tough that we found great difficulty cutting them, and we found this to be the cause of the tendinous texture of the cervical nerves.” Dr. Maty then quotes Dr. Bellett’s complicated explanation of these findings and his correlation of them to the Count’s symptoms.

Parkinson recognizes that the Count’s case, which began with a traumatic injury in a young man, shares only some manifestations with the shaking palsy:

“The weakened state of both arms; the power first lessening in one arm, and then in a similar manner in the other arm the affection of the speech; the difficulty in chewing and in swallowing; as well as of retaining, or freely discharging, the spittle; the convulsive motions of the body; and the unimpaired state of the intellects; constitute such a degree of accordance as, although it may not mark an identity of disease, serves at least to show that nearly the same parts were the seat of the disease in both instances. Thus we attain something like confirmation of the supposed proximate cause and of one of the assumed occasional causes.”

A reader senses some resignation and frustration in this passage, however; Parkinson has searched the literature, and the Count’s case is the closest he has found to his concept of the shaking palsy, and it fortuitously includes autopsy results. But the case differs in so many ways from what he has described that the analogy is stretched: the count was young and had a clear injury; his gait does not sound like *scelotyrbe festinans*, and his convulsions do not sound like *tremor coactus*. The autopsy findings were helpful in that the Count had pathologic changes in the cervical spinal cord, the where Parkinson hypothesized the seat of the shaking palsy to be. But the Count’s disease wasn’t, quite, the shaking palsy.

Parkinson had great faith in the explanatory power of pathology, and he expressed hope at the end of the *Essay* that the lesion underlying the shaking palsy would soon be discovered. But his clear formulation of the disease and his decision to publish the *Essay* *without* a justificatory lesion can also be seen as an argument for the survival of a different way of conceptualizing disease, and of a different way of justifying a disease concept, even in the early nineteenth century when patho-anatomic correlations were becoming, if not the *sine qua non*, then at least a strong justification for claiming disease specificity.

Parkinson's formulation of the shaking palsy was based on the careful and repeated observation of a complex process over time; time was as much a part of the disease concept as the combination of different abnormal movements. The kind of observing that led Parkinson to this disease picture harkened back to the observational practices of the Hippocratic writers and Sydenham rather than forward, or sideways, to Paris. It was, in a sense, the pathoanatomic approach in reverse.

Time's arrow runs backwards in the pathoanatomic approach that came to fruition in Paris medicine: from the evidence of a lesion, one reconstructs the disease in the living body, and from that, a picture of what the patient's symptoms must have been. In an observational approach like Parkinson's, or the Hippocratics', time's arrow runs forward, from symptoms toward prognosis, predicting a future. In the absence of a recognizable lesion that locates the shaking palsy, the abnormal movements that make up the disease *are* the observable lesion.

Parkinson's *Essay* is a theoretical work about a disease for which an explanation has not yet been found. It does not fit the old theoretical model of constitutional illness,

but neither can it, yet, fulfill the criteria of the pathoanatomic model. To justify the claim of its being a real disease, Parkinson had to employ a different framework. He had to define his disease in a provisional way, syndromally: by specifying symptoms that consistently travel together, but for which a proven, or even accepted, cause is not necessary, though it would be desirable. What holds the disease concept together, as a construct, is observation, over time, of the individual cases in a case series. As in the very early article on lightning, more than in any of his intervening writings, in the *Essay* Parkinson does his reasoning in cases. Pending the discovery of an explanatory lesion, if and when that would occur, it was the format of the case series that would hold the construct together, providing a provisional structure in the same way it did in the lightning article, and again providing, as a format, enough elasticity to accommodate some individual variation among the cases, but with enough formality to keep the focus on the cases' shared characteristics.

It is not surprising that Parkinson had to search so hard to find published descriptions of conditions with any similarity to the shaking palsy, or that he spent so much effort thinking through the case of the Count de Lordat. Problems of movement had been classified and assigned places in some nosologies, but his concept of the shaking palsy as a disease of the nervous system, with heterogeneous symptoms in the form of abnormal movements that appeared in a particular order over a very long time, and that worsened in all patients in a particular way, represented a new way understanding disordered movement. Though Parkinson reasons that the cervical spinal cord is involved, viewing the heterogeneous manifestations of the shaking palsy as stemming from a single

localizable lesion is difficult. And the shaking palsy is a disease that cannot simply be diagnosed post-mortem; diagnosing it requires seeing a living person move abnormally.

It may not be coincidence that Parkinson cites no contemporary Parisians in the *Essay*, quite aside from political considerations and the recent history of war that had impeded communication between countries.⁹⁶ While he was not intellectually isolated in the way the archetype of a lone practitioner suggests, he nonetheless did his clinical observing in very different settings from the ones in which the great advances were being made in the Parisian hospitals. The few cases he described were not hospitalized patients seen in the aggregate on rounds and then efficiently brought to autopsy, in the way that facilitated the kind of ready patho-anatomical correlation that was developing in Paris. Hospitals of the scale of the Hôtel Dieu did not exist in the London of Parkinson's day, and there was no similar facility for the kind of aggregate pathologic work that was done there. In a letter to James Woodforde about the work of Morgagni and the opportunities pathoanatomy offered for generalizing about disease, Anthony Fothergill complained about there being an insufficient number of cases for this in England at the time:

“Were accurate histories and dissections recorded at our hospitals, a most important work might in time be formed from the materials. At present they are too scarce and too isolated.”⁹⁷

The work of characterizing the shaking palsy had to be done another way. The crowded hospital wards and pathology laboratories where French medicine was making its discoveries were not the places where this disease would, or maybe even could, easily be

⁹⁶ On the exchange of ideas about pathology between France and England at this time, see Russell Maulitz, *Morbid Appearances: the Anatomy of Pathology In the Early Nineteenth Century* (Cambridge: Cambridge University Press, 1987). On Paris medicine, see Erwin Ackerknecht, *Medicine At the Paris Hospital, 1794-1848* (Baltimore: Johns Hopkins Press, 1967).

⁹⁷ Christopher Lawrence, ed., “Take Time by the Forelock”: *The Letters of Anthony Fothergill to James Woodforde 1789-1813* (London: Wellcome Institute for the History of Medicine, 1997), Letter 51, dated “Bath Oct^r 29th 1796, p. 64.

noticed. The gait was not conducive to hospital environments, nor was the disease, as a composite of signs and symptoms, something that could be seen in the dissecting room.

Though he was involved in intellectual networks in a way that helped him to organize his observations and then to communicate them, Parkinson's method of relatively lone observation may have been more in the British tradition of observing people *in situ*, in their homes, like Sydenham and William Budd, but also on sea voyages, as described by Margaret DeLacy, with observers generalizing about sickness in sailors after watching a similar disease develop in many men with similar youth and strength.⁹⁸ Implicit here is the idea that, in the absence of a pathoanatomic standard for justifying a diagnosis, there was a different path to understanding and recognizing disease, and that is through careful and repeated, and recorded, observation of living patients.

Parkinson was aware that he ran some risk in positing the shaking palsy as a disease before he could explain it pathologically. He begins the book by expressing the hope that his writing will encourage someone to perform the research that will explain the disease.

"To delay . . . publication did not, indeed, appear to be warrantable. The disease had escaped particular notice; and the task of ascertaining its nature and cause by anatomical investigation, did not seem likely to be taken up by those who, from their abilities and opportunities, were most likely to accomplish it. That these friends to humanity and medical science, who have already unveiled to us many of the morbid processes by which health and life is abridged, might be excited to extend their researches to this malady, was much desired; and it was hoped, that this might be procured by the publication of these remarks."⁹⁹

⁹⁸ See Margaret DeLacy, "Nosology, Mortality, and Disease Theory in the Eighteenth Century," *Journal of the History of Medicine and Allied Sciences* 1999; 54 (2): 261-284, and "The Conceptualization of Influenza in Eighteenth-Century Britain: Specificity and Contagion," *Bulletin of the History of Medicine* 1993; 67(1): 74-118. Thanks also to the late Harry M. Marks for sharing with me his manuscript about aggregate British clinical observations in the absence of pathology in a later time period, "London Consultants Explain Disease."

⁹⁹ Parkinson, *Essay*, pp. iii-iv.

In the very last sentences of the *Essay*, Parkinson conveys this message again, but in a way that tells the reader with which kinds of works he would like the *Essay* classified:

“Before concluding these pages, it may be proper to observe once more, that an important object proposed to be obtained by them is, the leading of the attention of those who humanely employ anatomical examination in detecting the causes and nature of diseases, particular to this malady To such researches the healing art is already much indebted for the enlargement of its powers of lessening the evils of suffering humanity. Little is the public aware of the obligations it owes to those who, led by professional ardour, and the dictates of duty, have devoted themselves to these pursuits, under circumstances more unpleasant and forbidding. . . . [H]ow few can estimate the benefits bestowed on mankind, by the labours of a Morgagni, Hunter, or Baillie.”¹⁰⁰

The men Parkinson mentions all performed post-mortem dissection, looking for the pathoanatomy underlying the signs and symptoms of illness, and then systematically wrote and taught about their findings and about disease. Parkinson is calling attention here not only to their skill in pathology but also to their humaneness. As Stephen Jacyna shows about John Hunter and Malcolm Nicolson about Morgagni, these men did not identify themselves as pathologists; the pathoanatomic work they did was not isolated from the care for patients but was undertaken, rather, to inform it.¹⁰¹

¹⁰⁰ Parkinson, *Essay*, pp. 65-6. In the *Essay*, Parkinson quotes Sauvages, but he cites no contemporary Parisians and does not include any in this group of admirable men; he was well read and familiar with French, but 1817 was not politically a time of francophilia for Britons.

¹⁰¹ Malcolm Nicolson notes, "Historians have tended to regard *De Sedibus* as a pioneering work of pathological anatomy. However, as Saul Jarcho has pointed out, the author of *De Sedibus* was not primarily a pathologist or anatomist. He was, first and foremost, a physician and a teacher of would-be physicians. *De Sedibus* is a treatise on clinical medicine rather than one on pathological anatomy, in the narrow nineteenth-century sense of that term. This is evidenced by the fact that many of the cases described in the book had a successful conclusion, and so never came to the dissecting table. Nor did Morgagni regard post-mortem dissection as an end in itself. The autopsy investigations recorded in *De Sedibus* were undertaken in order to improve the understanding of disease at the bedside." Malcolm Nicholson, "Giovanni Battista Morgagni and Eighteenth-Century Physical Examination," in Christopher Lawrence, ed., *Medical Theory, Surgical Practice: Studies in the History of Surgery* (London and New York: Routledge, 1992), pp. 101-134, p. 102. Stephen Jacyna says of John Hunter, "Recent studies of Hunter have tended to consider his physiological theories in the abstract—as one thread in the varied texture of bio-medical thought at the end of the eighteenth century. This is to oversimplify the instrumental character that Hunter himself ascribed to his physiology: the primary use of such knowledge was the improvement of the art of surgery." "Physiological Principles in the Surgical Writings of John Hunter," in Christopher Lawrence, ed., *Medical Theory, Surgical Practice*, pp. 135-152, p. 135.

CHAPTER 5

Gaining a Foothold: The Early Reception of Parkinson's Essay

Very soon after Parkinson's *Essay on the Shaking Palsy* was published in 1817, *The London Medical and Physical Journal* announced the book's appearance in one paragraph of a long article entitled, "Retrospective View of the Late Improvements in Medicine and Surgery," under the heading "Mental or Cerebral Diseases." After briefly introducing the book, the announcement indicated that a full review would follow:

"Mr. Parkinson has published a small pamphlet on 'the Shaking Palsy,' which he supposes to have an origin in the cervical part of the spinal medulla. He very modestly apologizes for the hypothetical nature of his speculations on this head. In this we think he hardly does himself justice. At the same time, he appears to us to have marked only one cause for a variety of diseases arising from various causes, and exhibiting different phenomena. The importance of his remarks, however, demand an early attention in our analytical department."¹

Though the announcement's anonymous author suggests that Parkinson was too modest in worrying about the 'hypothetical nature' of his speculations, he nonetheless politely expresses doubts about the singularity and specificity of the shaking palsy. Such doubt was of course precisely what Parkinson had feared when he published the *Essay* before he had plausible pathologic evidence that the shaking palsy was one disease. This simple sentence, "[H]e appears to us to have marked only one cause for a variety of diseases

¹ *The London Medical and Physical Journal*, July 1817; 38(221): 24-5. First appearing in 1799, this journal was an early example of a monthly, rather than an annual, medical periodical; its goal was to circulate "the earliest information" on medical subjects. It published spirited contributions from readers and, according to Roy Porter, was so widely read that medical authors used its pages to publicize and correct errata in their books. See Roy Porter, "The Rise of Medical Journalism in Britain to 1800," in William F. Bynum, Stephen Lock and Roy Porter, eds., *Medical Journals and Medical Knowledge: Historical Essays* (New York: Routledge, 1992), pp. 6-28, pp. 17-18. The "Retrospective View" quoted here also announces the appearance of three other publications pertaining to "mental and cerebral diseases," including two tracts addressing the "Laws Relating to Private Lunatic Asylums," one published anonymously and the other written by Dr. Burrows (George Man Burrows, who wrote widely on insanity and whom Parkinson would follow, in this year of 1817, as president of the Society of Apothecaries). See also Louis Herzberg, "An *Essay on the Shaking Palsy*: Reviews and Notes on the Journals in Which They Appeared," *Movement Disorders* 1990; 5(1): 162-6; Herzberg quotes and describes this announcement, p. 162.

arising from various causes, and exhibiting different phenomena,” in fact, questions the premise of Parkinson’s book, setting the stage for a half-century of discussion.

This chapter will explore how the concept of the shaking palsy was understood and applied during the early decades after Parkinson’s original description of the disease in 1817 and before the consolidation of the disease picture by Jean-Martin Charcot in Paris fifty years later. Most histories of the disease have depicted this interval as a time when not much happened. Skipping directly from Parkinson to Charcot’s work at the Salpêtrière, they leave the impression that the disease concept somehow remained both intact and undisturbed until it was reworked and popularized in Paris.²

During these fifty years, however, as this chapter will argue, quite a lot happened to the disease concept, as was necessary for the idea of the shaking palsy to survive so long, amidst so much transformation in the world of medicine. During this half-century the contours and boundaries of the disease Parkinson described would be refined and negotiated, its individual manifestations debated, and its validity as a true and distinct disease tested. It is telling that the seeds of these future debates arose as early as this first announcement, an announcement that was not yet even a full review and that was perhaps the very first published mention of the *Essay*.

As promised, *The London Medical and Physical Journal* soon produced a full-length review, also anonymously penned, that spanned four and one half pages.³ It appeared in the same July, 1817, issue of the journal as the earlier announcement. In all but its final page, this review summarizes the *Essay*, excerpting long passages to recreate

² See, for example, Christopher Goetz, “The History of Parkinson’s Disease: Early Clinical Descriptions and Neurological Therapies,” *Cold Spring Harbor Perspectives in Medicine* 2011; 1:a008862, pp. 1-15, which describes Parkinson’s predecessors, Sylvius de la Boë and Sauvages, but proceeds directly from Parkinson’s *Essay* to Charcot without mentioning anyone in between.

³ *The London Medical and Physical Journal*, July 1817; 38(221): 71-5.

Parkinson's argument, starting with his apology for early publication and ending with his thoughts about the cause of the shaking palsy and his recommendations for treatment.

The review then continues, without breaking for a new paragraph, to present two cases of its own:

“When the disease can be traced in any member, so as to give a fair implication of the part of the spine likely to be affected, Mr. P. proposes bleeding in the neighborhood of the latter, and the application of blisters or issues.⁴ In the first of these we perfectly agree, and are sure the candid author will find much gratification in learning, that bleeding with cupping glasses on each side of the spine has been a practice with us in many cases similar. At this time, two females are receiving relief at a public institution, one who has never menstruated, though arrived at the age for that process; the other, in whom menstruation has been apparently impeded by a laborious employment and scanty diet. Each has pains in the vertebrae, and one of them an incapacity to preserve her posture erect, or to walk without difficulty. The other has numbness in the lower limbs, with trembling and involuntary motion. It should be added, that in the latter there is a considerable bony projection in one part of the spine, though the whole figure is tolerably erect. Both are considerably relieved by topical bleeding.”⁵

With this, an interpolation that might strike modern readers as a non-sequitur, the review begins its coda, expressing disappointment about the brevity of Parkinson's book, allowing with reluctance ‘such scanty limits to so many valuable hints as we have met with in this pamphlet,’ and ‘heartily’ recommending it ‘to universal perusal.’⁶ This laudatory finale has an earnest but slightly formulaic feel about it, however, and the review provides none of critique that the earlier announcement seemed to promise, neither evaluating its argument's merits nor directly addressing its contribution to medical knowledge. More specifically, it does not argue, as the announcement suggested

⁴ A blister involves the topical application of a substance like mustard or cantharis (*Lytta* (formerly *Cantharis*) *vesicatoria*, or powdered “Spanish flies”), which functions as a stimulant. It is applied as a blistering plaster, with the goal of “artificially” removing fluid directly from the body into the blister fluid, which then “issues” from the body. J. Worth Estes, *Dictionary of Protopharmacology: Therapeutic Practices, 1700-1850* (Canton, Massachusetts: Science History Publications, 1990).

⁵ *The London Medical and Physical Journal*, July 1817; 38(221): 75.

⁶ *The London Medical and Physical Journal*, July 1817; 38(221): 75.

it might, that the shaking palsy described by Parkinson is in fact more than one disease. The vibrant section of the review, instead, is the original cases it presents.

Not surprisingly, recent examinations of this review have focused on the reviewer's interpolated cases, suggesting that their inclusion represents the mistaken assumption on his part that these two women suffered from the shaking palsy, when their conditions in fact differed so markedly from the condition Parkinson depicted.⁷ Where Parkinson's cases were all older men with a particular kind of tremor and a specific abnormality of gait, the reviewer's cases are two younger women who do not menstruate normally. While both women suffer from spinal conditions, they do not have the same spinal condition. No gait abnormality is described in either, nor are the trembling and unusual posture that are observed in one of the women. The menstrual problems, pain, numbness, and spinal deformity that the reviewer describes were not included among the manifestations of the shaking palsy that Parkinson depicted.

The later writers are probably correct that neither of these women was suffering from the disease Parkinson described. But, on close examination, the reviewer is not actually saying that they were. He is using this part of the review for a different purpose. He is presenting these women as two of 'many' cases 'similar' to the shaking palsy that he has seen: similar in the sense that they, like the shaking palsy, might be understood as

⁷ See, for example, William H. McMenemey, "James Parkinson 1755-1824: A Biographical Essay," in MacDonald Critchley, ed., *James Parkinson (1755-1824): A Bicentenary Volume of Papers Dealing with Parkinson's Disease, Incorporating the Original 'Essay on the Shaking Palsy'* (London: Macmillan and Co., Ltd., 1955; and New York: St. Martin's Press, 1955), pp. 1-143, p. 126: "One reviewer was clearly confusing paralysis agitans with other diseases and writes, 'We are sure the candid author will find much gratification in learning that bleeding with cupping glasses on each side of the spine has been a practice with us in many similar cases.'" Louis Herzberg, in "An Essay on the Shaking Palsy: Reviews and Notes," quotes this part of the review as well, noting that "[a] 20th-century neurologist would be unlikely to consider Parkinson's disease as a cause of the problems experienced by these two patients. An understanding of 20th-century pathology and pharmacology may also account for the lack of belief in the value of treatment by 'topical bleeding,'" p. 162.

resulting from injury to, or pressure on, the spine. Ending his review with a description of his own success in treating these two women by employing the methods Parkinson recommended, the author is using the medium of the book review to acknowledge Parkinson's contribution to medical knowledge. But he is doing so in a way that allows him to contribute to medical knowledge himself, as well, by communicating his own success in extending Parkinson's rationale for treatment to other categories of patients with problems 'similar' to the shaking palsy. Crucially, he is emphasizing therapeutics rather than diagnosis.

When Parkinson's contemporaries read the *Essay*, they would have absorbed it as a whole, and they would have understood it as something new in the domain of diagnosing and treating conditions, seemingly spinal in origin, that produced odd physical movements, postures, and gaits. The depiction and categorizing of a new disease was not the only important thing, or for some readers, maybe even the most important thing, that the *Essay* offered. Thus, the writer of this first review is particularly intrigued by the idea and seeming success of treating, with methods he himself has used and that Parkinson has suggested, a spectrum of symptoms that appear to result from pressure on the spinal cord.

Parkinson's ideas about the etiology and treatment of the shaking palsy have long been abandoned, and the sections of the *Essay* that describe them are currently mostly ignored. Their very language now sounds quaint, difficult to absorb, and clinically obscure—in contrast to the section describing the disease's appearance, which, in its limpid precision, retains its clinical utility and can appear misleadingly timeless. But Parkinson's contemporaries would have read the *Essay* differently; his ideas about

etiology and treatment would have appeared no less logical, comprehensible, or important to them than the description of the disease. They would have read such a book in part to discover whether any element of it could be applied productively in their own practices. Parkinson's suggestion that early treatment might prevent progression of the shaking palsy would have captured their attention; his analogies to other spinal conditions might well have suggested to them a common approach to treating conditions 'similar' to the shaking palsy he described.

Medical periodicals were widely and carefully read in the late eighteenth and early nineteenth centuries, by medical practitioners and by members of the public. They performed many functions in what was a highly heterogeneous medical community, simultaneously reflecting and shaping medicine. Their accessibility had a democratizing effect, making medical knowledge available to a broad range of practitioners, and they served as a forum for practitioners who ordinarily would not have written medical texts to present cases, argue principles, discuss treatment, and otherwise contribute to medical discourse and knowledge.⁸ In their reviews and summaries, periodicals disseminated the contents of expensive books to people who would otherwise not have had access to their contents, sometimes serving as a proxy for the books and articles themselves, and all the while providing their own interpretations and emphases. The books reviewed in these journals thus became known to a wider readership than those that remained unreviewed.

⁸ On the characteristics and importance of medical periodicals at this time, see William F. Bynum, Stephen Lock and Roy Porter, eds., *Medical Journals and Medical Knowledge: Historical Essays* (New York: Routledge, 1992), particularly Roy Porter, "The Rise of Medical Journalism in Britain to 1800," pp. 6-28; Jean Loudon and Irvine Loudon, "Medicine, Politics, and the Medical Periodical 1800-1850," pp. 49-69; and William F. Bynum and Janice C. Wilson, "Periodical Knowledge: Medical Journals and their Editors in Nineteenth-Century Britain," pp. 29-48. See also Myrl Ebert, "The Rise and Development of the American Medical Periodical 1797-1850," *Bulletin of the Library Association* 1952; 40(3): 243-76; and Bruce Manzer, *The Abstract Journal 1790-1920: Origin, Development, and Diffusion* (Metuchen, New Jersey, and London: Scarecrow Press, 1977).

The fact that the *Essay* was reviewed, rather than ignored, helped prevent it from falling into obscurity.

Reviews and summaries could nonetheless always be a double-edged sword. A careless or negatively biased review could distort the content of the book it was representing, and most of its readers would have no independent knowledge of the book with which to counter prejudice or error. For a work like the *Essay*, which went through only a single printing, the portrayal it received in reviews would deeply influence its future reception and reputation: how its contents would be understood, whether it would appear to offer truly new ideas, and even whether its contents would aid practitioners in their practice. The earliest reviews of the *Essay* were thus very important to its reception and to the disease concept it introduced.

The *Essay* was ultimately reviewed in four medical periodicals in London. The second review, which appeared in the *London Medical Repository*, spanned two pages of a much longer article entitled “Retrospect of the Progress of Medical Science.”⁹ This periodical had been established for an audience of surgeon-apothecaries, particularly country practitioners, in 1814, both to provide information about new books and ideas and to foster a sense of professional and corporate identity in general practitioners.¹⁰ The title page of the 1817 volume of the *Repository* lists George Man Burrows and Anthony Todd Thompson as its authors. Burrows, who wrote widely about insanity and the

⁹ *London Medical Repository, Monthly Journal and Review* 1817; 8: 59-61.

¹⁰ Jean Loudon and Irvine Loudon, observing that surgeon-apothecaries at this time were most often, “by the standards of their time, capable, educated, and even cultivated men,” describe the appearance in 1814 of the *London Medical Repository* as fostering the “new and growing sense of corporate identity amongst general practitioners,” at a time just after the establishment of the Association of Apothecaries and Surgeon-Apothecaries in 1812 and just before the consolidation of training requirements (among many other things) enacted in the Apothecaries Act of 1815. “The Medical Periodical 1800-1850,” pp. 64-5. For a detailed analysis of the developing corporate identity and professionalization of the surgeon-apothecaries—later, the general practitioners—of Great Britain, see Irvine Loudon, *Medical Care and the General Practitioner, 1750-1850* (Oxford: Oxford University Press, 1986).

treatment of the insane, was the first president of the Association of Apothecaries and Surgeon-Apothecaries; James Parkinson followed him in that office in 1817, the year the *Essay* was published. They would at least have been personally acquainted and perhaps knew each other well.

The *London Repository*'s review consisted of two long paragraphs, the first noting Parkinson's postulation of a new disease and listing its characteristic manifestations, and the second summarizing his ideas about etiology and treatment, again with the emphasis on treatment:

“With regard to the means of cure, every thing which can be expected to accomplish any beneficial effect must be attempted in the first stage of the disease, or while the agitation does not extend beyond the arms. The means suggested are bleeding from the upper part of the neck, followed by vesicatories or issues, calculated to begin and keep up a purulent discharge. No internal remedies are recommended, unless opportunity to make trial of mercury : but tonics, and nutritious stimulating diet are justly reprobated. The slow progress, however, of the disease, and the late period of life at which it occurs, does not allow much to be expected in a remedial point of view.”¹¹

This review is a more implicitly directive, as opposed to descriptive, than any of the other early reviews, in keeping with the journal's aims. It emphasizes in a quite operationalized way not only what, according to Parkinson, the practitioner should do, but also what, in the interests of doing no harm, he should not do.

This review also provides some analysis, questioning not Parkinson's claim that the shaking palsy is a distinct disease, but the circumscribed nature of its seat.

Acknowledging Parkinson's locating of the disease's cause “in the *medulla spinalis*, in that part which is contained in the canal formed by the superior cervical vertebra [sic], and extending, as the disease proceeds to the *medulla oblongata*,” the writer, probably Burrows, notes,

¹¹ *London Medical Repository* 1817; 8: 60-1.

“It is only difficult to conceive, that the diseased state should be so local as to exist in the superior part of the medulla without extending to the encephalon, the integrity of which is implied from the absence of any injury to the senses and intellect. The remote cause [i.e., what caused the problem in the medulla] is not less objectionable than the proximate [the idea that the problem is located in the medulla].”¹²

The quite reasonable question is how the pathologic disease process, or whatever it is that is disturbing the spinal cord, can be so minutely localized as to spare the neighboring area of the brain with which it is continuous. The writer does not adjudicate this, or offer an alternate theory, but leaves the issue of etiology as still open to question. For the purposes of this particular journal, in a way that is consistent with its goals, it is the treatment and the avoidance of harm through the wrong treatment that are most important.

The next review of the *Essay*, which appeared in *The Medico-Chirurgical Journal and Review*, begins by noting that “[t]he disease, respecting which the present inquiry is made, is of a nature highly afflictive. Notwithstanding which, it has not yet obtained a place in the classification of Nosologists.”¹³ Having thus stated clearly, more or less in Parkinson’s own words, that Parkinson is proposing a new disease, the review then attempts to allay Parkinson’s fears about “any censure which the precipitate publication of mere conjectural suggestions may incur,” stating that “his pamphlet does not come under any such title; and the name of the author would be a sufficient passport to publicity, and security from aspersions, for a much less respectable performance.”¹⁴ The

¹² *London Medical Repository* 1817; 8: 60. Bracketed comments are mine. The reviewer is wondering here how the disease process can be so localized (to the spinal cord) that it does not extend to the medulla oblongata, a part of the brain (or encephalon) that is essentially continuous with it; he concurs with Parkinson that this is the case by the fact that there are no mental manifestations to Parkinson’s shaking palsy. If the disease did extend to the brain, he reasons, there would be mental signs of this extension. Meanwhile, there appears to him to be nothing to prevent a disease of the spinal cord from extending to the medulla oblongata, the most proximal part of the brain.

¹³ *The Medico-Chirurgical Journal and Review* 1817; 4: 401-8, p. 401. This review appears between a discussion of how best to treat umbilical hernias in children and the review of a work on monstrous births.

¹⁴ *The Medico-Chirurgical Journal and Review* 1817; 4: 402.

review, which includes no critique or discussion of Parkinson's claim, then presents a careful six-page précis of the whole work, followed by a single sentence stating that the "little pamphlet is highly worthy of perusal and deserves the attention of the medical public."¹⁵ For the writer of the review, and, he suggests, the readers as well, Parkinson's name and reputation should be familiar enough to suggest credibility. The phrase "medical public," a seeming oxymoron that probably denotes physicians, surgeons, and apothecaries, is suggestive about the breadth of the journal's intended (and probably actual) readership of various medical practitioners, explicitly including not quite the whole public, but at least the medically interested public.

The fourth London medical periodical to discuss the *Essay* was *The Monthly Gazette of Health*.¹⁶ In a review, titled "Shaking Palsy," that seems both archer in tone and more hastily written than the previous three, even verging on slapdash, the review begins by noting that:

"Surgeon Parkinson, a practitioner of considerable experience and scientific attainments has published a popular treatise on this disease—After investigating the causes, &c. of the malady, all he has ventured to assume is, that the disease depends on a disordered state of that part of the spinal marrow which is contained in the spine of the neck; but of what nature that morbid change is, and whether originating in the spinal marrow itself, in its membranes, or in the containing canal, remains a subject of doubt and conjecture. But although, at present, uninformed as to the precise nature of the disease, still it ought not to be considered as one against which there exists no countervailing remedy."¹⁷

From here, the review goes on to excerpt a series of sequential paragraphs directly from the *Essay*, beginning with Parkinson's discussion of possible causes of the shaking palsy, specifically the analogy to the case of the Count de Lordat, proceeding through the sections about treatment, and ending somewhat abruptly and without further commentary.

¹⁵ *The Medico-Chirurgical Journal and Review* 1817; 4: 408.

¹⁶ *Monthly Gazette of Health* 1817; 2: 567-72.

¹⁷ *Monthly Gazette of Health*, pp. 567-8.

The quoting is direct, with the important exception that the reviewer replaces some technical words with more vernacular words, some of which have very different meanings from the words they replace. The effect of these substitutions, instead of rendering complex ideas comprehensible to a wider audience, is further to opacify them.¹⁸

What is most noticeable about this review is that it does not address at all Parkinson's idea that he is characterizing a hitherto undescribed disease; the idiom "Shaking Palsy" appears in the title of the review but does not appear again. The review's sequence, going directly from the title to a discussion of etiology, assumes that the writer and reader already have and share a concept of the disease called the shaking palsy, and that the aspects of the *Essay* meriting discussion are etiology (which the *Essay* only can theorize and analogize about) and treatment. The new disease concept, and particularly the fact that it is new, is passed over, maybe even missed.

This point was not missed in a review that appeared a bit later in *Critical Reviews, or, Annals of Literature*, a non-medical publication geared for the literate public:

Art. 15.—*Essay on the Shaking Palsy*. By James Parkinson. 8vo. Pp. 66. London, Sherwood and Co. 1817. "The terms shaking palsy, or paralysis agitans, have been vaguely employed by medical writers to that by some they are used to designate the ordinary cases of palsy, in which some slight tremblings have occurred; and according to others, they are applied to certain anomalous affections not even belonging to the palsy. The author endeavors, in this treatise,

¹⁸ For example, Parkinson's word "theca," meaning "sheath" [a covering of the spinal cord] is here replaced by "canal," which produces a sentence that makes neither visual nor anatomic sense, and that practitioners would thus not have been able to act on: "The result of this [inflammation] would be a thickening of the canal [sic; theca, per Parkinson], or membranes, and perhaps an increase in the volume of the medulla [spinal cord] itself, which would gradually occasion such a degree of pressure against the sides of the unyielding canal as must eventually intercept the influence of the brain upon the inferior portion of the medullary column . . ." A canal cannot put pressure on itself; swollen things inside it, like thecae, could, however. *Monthly Gazette of Health*, p. 568. Jean Loudon and Irvine Loudon remark on the poor quality of this periodical, calling it "a little known and rather disreputable journal which published scurrilous attacks on physicians and the Royal Colleges, and saw itself as the supporter of the rank and file." Loudon and Loudon, "Medicine, Politics, and the Medical Periodical, 1800-1850," p. 60.

to illustrate the history of the disease—to point out the pathognomic symptoms—to distinguish it from other diseases with which it has been confounded—to trace its proximate and remote causes; and he closes the subject with considerations respecting the means of cure.”¹⁹

Unlike the reviews in some of the medical periodicals, this short review effectively summarized the *Essay*, underscoring Parkinson’s attempt to characterize a particular disease and to distinguish it from other problems to which the name ‘shaking palsy’ had earlier been applied.

All the reviews described above were generated in London; I have been able to locate only one contemporary review generated outside London. In its October 1817 issue, in a section called “Retrospect of Medicine and Surgery,” the *New England Journal of Medicine and Surgery* reprinted, verbatim, the review from the *London Medical Repository* described above.²⁰

In recent histories of the disease, the early reception of the *Essay* by Parkinson’s medical contemporaries has been portrayed in two conflicting ways. The first suggests that the *Essay* was underappreciated and mostly ignored at the time of its publication, its importance unrecognized and its message misunderstood until its much later rediscovery.²¹ The second presents the *Essay* as well received, welcomed as the important

¹⁹ *Critical Reviews, or Annals of Literature* 1817 (June); 5(6): 648. I have not seen this review cited before. *Critical Reviews* was established in 1756 by Tobias Smollett (1721-1771), the physician and novelist, who wrote much of the content of its early issues. In the early nineteenth century, it often abstracted material from such specialized publications as the *Medical Transactions*, demonstrating what Roy Porter called its ‘bridging effect:’ the diffusion of “originally restricted and arcane material to wider audiences through the agency of popularizing media (the *Critical Review* was a general interest monthly specializing in book-reviewing).” Porter, “Medical Journalism,” pp. 14-15.

²⁰ *New England Journal of Medicine and Surgery* 1817; 6: 345-7.

²¹ See, for example, J. M. Keppel Hesselink, “Some Historical Aspects of Parkinson’s Disease. The Progression of Insights in the Period 1817-1868,” *Janus* 1983; 70(3-4): 263-79, p. 265: “In his time, Parkinson’s study was not given its proper due.”

work of a respected practitioner and commented on with interest, its significance more or less grasped immediately.²²

Both views rest on far more recent ideas about the significance of the *Essay* in the history of medicine and thus implicitly about what the *Essay* should have been perceived to offer at the time. They assume that once the previously-unrecognized disease had been described and named, it should and would immediately have become recognizable, a part of the shared understanding and classification of disease that physicians could apply to signs and symptoms they encountered in practice. The implication is that physicians finally had a category into which they could place a particular constellation of symptoms that they had not previously known how to classify, and that they would immediately have known how to avail themselves of it. The fact that they did not is sometimes read, in retrospect, as their not having fathomed Parkinson's work.

The reception of Parkinson's ideas was likely a bit more complicated than this. The *Essay* was to a certain extent recognized and appreciated soon after its publication, as the several reviews in London's more serious medical periodicals indicate. But it was not widely reviewed outside London at the time.²³ And although it was respectfully received, the *Essay* was not perceived as groundbreaking at the time. More to the point, it perhaps *could not* have been perceived as groundbreaking.

²² See, for example, Stanley Fahn, "The History of Parkinsonism," *Movement Disorders* 1989; 4; Supplement 1: S2-S10, p. S2: "The description of the "shaking palsy" offered by Parkinson was immediately recognized by the medical profession, not only in England but also in other countries, with most authors emphasizing tremor."

²³ I have been able to find only the *New England Journal* review of the *Essay* originating outside London in the two or so years following its publication in the more prominent English-language periodicals, even in periodicals that reviewed and excerpted books and that provided digests of medical news and intelligence: *The Edinburgh Medical and Surgical Journal* for 1817 or 1818, for example. Among periodicals published in the United States, I was unable to find reviews in the *New York Medical Transactions* (volume 19, 1817-1818), *The American Medical Recorder of Original Papers and Intelligence in Medicine and Surgery*, or *The American Journal of Medical Science* for 1818 or 1819.

While Parkinson's *Essay* certainly provided a clear description of, and a convincing argument for, the new disease he was postulating, that did not mean that medical theory, practitioners' practice, and patients' understanding would, or even could, change instantly to accommodate it. One could argue that the *Essay couldn't* change medical thinking and practice, at least initially, because it was answering a question that no one was yet asking. It was providing a way of thinking about a group of signs and symptoms that no one had viewed as linked or conceived as a syndrome before.

Perhaps more important, this new disease concept had emerged in a medical world in which fine distinctions between ostensibly similar abnormal physical movements were not much emphasized in practice, partly because there were few practical benefits to making such distinctions. The new disease concept did not and actually could not produce a paradigm shift in medical thinking about abnormal movement; it was neither the solution to a problem that practitioners were troubled about nor a new way of framing medical findings that made sense of seeming anomalies in an older conceptual system.²⁴ It was solving a problem that no one was yet complaining about.

Once produced, however, Parkinson's formulation of the shaking palsy was influential, but its assimilation into conceptual frameworks and active practice was iterative and gradual, more of a slow infiltration than a revolution.²⁵ This infiltration occurred in a geographically particular manner, beginning in London with the *Essay* itself

²⁴ See Thomas Kuhn, *The Structure of Scientific Revolutions*, 3rd edition (Chicago: University of Chicago Press, 1996) and Ludvik Fleck, *Genesis and Development of a Scientific Fact*, translated by Fred Bradley and Thaddeus J. Trenn (Chicago: University of Chicago Press, 1979).

²⁵ On the idea that, once written, certain ideas become influential and influence further thinking about issues that had not exactly troubled people before, see Fleck, *Genesis*, p. 37: "[O]nce a statement is published it constitutes part of the social forces which form concepts and create habits of thought. Together with other statements it determines "what cannot be thought in another way." Even if a particular statement is contested, we grow up with its uncertainty which, circulating in society, reinforces its social effect."

and the first reviews, and entering medical practice and the medical literature in a local way at first. Gradually it spread to other places, as if through a series of concentric ripples emanating from London-- in fact, in some ways, emanating from 'The London,' where Parkinson had served as a hospital pupil.

After the initial reviews of the *Essay* had appeared, the first extended discussion of Parkinson's shaking palsy appears in John Cooke's *Treatise on Nervous Diseases*, a work based on Cooke's Croonian Lectures of 1819, 1820, and 1821 that was published in sections between 1820 and 1823 and then reissued in 1824, the year of Parkinson's death.²⁶ The *Treatise* summarizes current knowledge about broad categories of nervous disease, focusing on apoplexy, paralysis, and epilepsy, and incorporating information about the pathoanatomy as well as the symptoms and natural history of nervous conditions. While it was by no means the first book written about diseases of the nervous system, the *Treatise* is sometimes described, somewhat anachronistically, as the first textbook of neurology.

Cooke does not designate a separate section for tremors or other abnormal movements, but includes the shaking palsy in the *Treatise's* chapter describing palsies. His category of palsy is broad: defining 'palsy' as "a disease in which there is a diminution, or an entire loss, of the power of voluntary motion, or of sensation, or of both, in some particular part of the body, without coma," he thus classifies the loss of sensation *without* the loss of muscular power as a kind of palsy.²⁷ Of the shaking palsy, he says,

²⁶ John Cooke, *A Treatise on Nervous Diseases* (Boston: Wells and Lilly; and Philadelphia: Carey and Lea, 1824). The material in the *Treatise* was initially published in London in 1821. The Croonian Lectures are endowed annual invited lectures presented to the Royal Society and the Royal College of Physicians. Cooke's lectures on nervous diseases were given to the Royal College of Physicians.

²⁷ Cooke, *Treatise*, p. 224.

“A disease has lately been described by Mr. Parkinson, under the title paralysis agitans or shaking palsy, which appears to me to be highly deserving of our attention; I shall, therefore, here give a short account of it, though nosologists have not classified it among the palsies.

The disease begins with some degree of weakness, and a slight trembling in some particular part, sometimes in the head, but most commonly in one hand and arm. These symptoms gradually increase, and at length some other part becomes similarly affected, generally the other hand and arm. Some time after the appearance of these symptoms one of the legs is observed slightly to tremble, and is found to suffer fatigue sooner than the leg of the other side; but in a few months this leg also becomes agitated in a similar manner, and experiences a similar loss of power. Under these circumstances, the limbs, in walking, cannot be raised to that height, nor with that promptitude which the will directs, and the body is involuntarily thrown forwards, so that the patient is forced to step on his toes and the fore-part of his feet, and in walking to take short and quick steps, and at length to increase his pace to that of running, to prevent his falling to the ground.*²⁸

Here Cooke inserts a footnote (*), stating that “[t]he case of Major H., above described, as an anomalous paraplegia, was so strongly marked by these symptoms, that it might have been more properly placed under the head Paralysis Agitans.” He then returns to describing the disease:

“In this stage of the disease, the sleep becomes disturbed by tremulous motions; the limbs are no longer obedient to the will, so that the ordinary offices of life cannot be performed; the bowels become exceedingly torpid, and demand stimulating medicines of great power; the trunk is almost permanently bowed; the weakness greatly increases, and the tremulous agitation becomes very violent; the speech is much impeded; the power of retaining food in the mouth and of swallowing it, is almost abolished; the saliva trickles from the mouth; the urine and faeces pass away involuntarily; and constant sleepiness with slight delirium supervene, which are soon followed by the death of the patient.”²⁹

Cooke lucidly summarizes the symptoms Parkinson noted, focusing on the disease’s manifestations rather than its etiology or lack of a pathologic lesion, and conveying the disease’s inexorable progression, particularly its late manifestations, in a single long

²⁸ Cooke, *Treatise*, pp. 317-8.

²⁹ Cooke, *Treatise*, p. 318. In his initial summary, Cooke notes both of the disease names used by Parkinson: the shaking palsy and paralysis agitans. Citing the case of Major H, he uses only Paralysis Agitans, capitalized here, but not earlier. The divergence of these two disease names’ denotation, connotation, and usage becomes evident later in the century, but this is an early suggestion of the invocation of the seemingly more official or technical Latin in the process of diagnosing a particular patient.

sentence punctuated by semicolons. His sentence mimics the relentless quality of the disease, metaphorically allowing the reader only a half-stop after reading about one symptom before being faced with the next: readers can hardly catch their breath.

It was not by chance that Cooke knew of Parkinson's ideas, quite aside from the fact that he would likely have encountered the *Essay* while reviewing the literature on nervous diseases. Like George Man Burrows, who was probably *The London Medical Repository's* anonymous reviewer of the *Essay*, Cooke was almost certainly personally acquainted with Parkinson; they were linked in at least two ways. Both were closely affiliated with the London Hospital. Cooke, like Parkinson, was a protégé and, later, colleague of William Blizard, and he had, with Blizard's help, been elected to the post of staff physician to the London in 1784.³⁰ Blizard, whom Parkinson consulted on surgical cases in his practice, continued to work and teach at the London with Cooke.³¹ Parkinson and Cooke were both members of the London Medical and Chirurgical Society in 1817 and would have encountered each other at its meetings as well.³²

³⁰ According to A.E. Clark-Kennedy, the London created strong and continuing bonds, marked by annual dinners and the like, among the men who worked and learned there, including former pupils and current staff, facilitating their acquaintance and collaboration. See also W. Russell Brain, *Doctors, Past and Present* (Springfield: Charles C. Thomas, 1964). In a chapter entitled, "The Neurological Tradition of the London Hospital," pp. 108-29, that begins with Parkinson, Lord Brain unaccountably omits Cooke. "The neurological history of The London Hospital begins," he says, "in 1776 with the admission of James Parkinson as a 'dressing pupil,'" p.108-9. After Parkinson, the next person (chronologically) he describes is William John Little (1810-94).

³¹ Cooke studied medicine at Edinburgh, received his medical degree from Leyden, and studied further at Guy's Hospital, where his father served as Apothecary and where he met Blizard. He served as staff physician at the London for twenty-three years. See E. A. Clark-Kennedy, *The London: A Study in the Voluntary Hospital System*, vol. 1, *The First Hundred Years, 1740-1840* (London: Pitman Medical Publishing Co. Ltd., 1962), p. 174.

³² For a list of the members of the London Medical and Chirurgical Society in 1817, see *Medico-Chirurgical Transactions*, 1817; 8(1), preface. Other members of this rather remarkable society at the time included John Abernethy, Charles Bell, George Birkbeck, Sir Gilbert Blane, Richard Bright, Henry Cline, Astley Cooper, Andrew Duncan, Edward Jenner, John Lind, John Elliotson, William Somerville, and Matthew Baillie, though the degree of their individual participation is unclear, especially that of members like Jenner and Duncan who did not live in London. By 1820, John Cooke, M.D., F.R.S., was listed as "among other members of the council," of the Society, and "James Parkinson, Esq, Hoxton-Square" was again listed among the members. *Medico-Chirurgical Transactions* 1820; 11, preface, p. vii. Cooke, who

Cooke has been gently rebuked for not contributing anything new to knowledge about the nervous system with this book, but this critique may represent a misunderstanding of what he was attempting to accomplish.³³ In the *Treatise*'s preface, he explicitly addressed the summarizing and consolidating function of the kind of book he was writing, contrasting it to works that report previously undescribed phenomena. He noted how such summings-up can be useful:

“It was the opinion of a late eminent physician, that more real service may be rendered to medicine by the illustration of what is already known on the subject, than by any attempts to promulgate new theories or new modes of practice.

Impressed with the justice of this opinion, and the propriety of acting upon it, I have taken considerable pains in endeavoring to collect, to arrange, and to communicate, in plain clear language, a variety of useful observations from the best authors, both ancient and modern, respecting principal diseases of the nervous system . . .

After an experience in medicine of many years, I have ventured occasionally to introduce into this compilation my own opinions and practice, as well as to comment upon those of others; but I trust that in this I have betrayed no signs of dogmatism, or self-confidence.”³⁴

Cooke's clear situating of his book in the category of literature that sums up knowledge rather than creating it is consistent with the intended function of a certain kind of book *vis à vis* the less formal and more ephemeral periodical literature that features reviews and reports of individual cases. But the fact that Cooke felt compelled to define, and even defend, his approach suggests that it was somewhat novel.

was elected a fellow of the Royal Society, served as president of the Medical and Chirurgical Society in 1822 and 1823. See Norman Moore, “John Cooke,” *Oxford Dictionary of National Biography on Line*, 2004-2013, <http://www.oxforddnb.com.proxy1.library.jhu.edu/view/article/6174?docPos=8>, accessed June 17, 2013.

³³ See, for example, in “John Cooke,” *The Dictionary Of National Biography*, the observation that, “Although [the *Treatise*] contains no important addition to medical knowledge, it shows considerable clinical acquaintance with the subject.” Clark-Kennedy notes that in the *Treatise*, “Cooke described paraplegia, hemiplegia, and lesions of the individual nerves, but failed to explain that lesions on one side of the brain tend to cause paralysis on the opposite side of the body, remaining unaware of the decussation of the pyramidal tracts in the medulla although this had already been described,” *The London*, vol. 1, p. 210.

³⁴ Cooke, *Treatise on Nervous Diseases*, p. iii.

Cooke's *Treatise* is the first place where Parkinson's theory about the nature of the shaking palsy enters the universe of 'known things,' accepted as a facet of accumulated knowledge, about nervous disease. Cooke's description of the shaking palsy is historically important, because his book was widely read, providing the image of the disease that was, aside from Parkinson's own book, the most easily accessible and broadly circulated description of the disease, ultimately influencing writers including Charcot decades later.

Significantly, however, this relatively early example of a summative book of this kind still allows the author a bit of leeway: the space for including his own perspective on the subject, an echo of the marginalia and commentary penned by the compilers of the much older *consilia* and other kinds of compendia, in this case in the form of a footnote.³⁵ While the larger purpose of the work is clearly summative and expository, citing authorities and digesting the existing literature, Cooke nonetheless retains a place in the format to contribute to the knowledge he is summarizing by introducing just a bit of his own experience.

Like the first reviewer of the *Essay*, Cooke adds a case of his own, or at least chooses retroactively to classify "under the head Paralysis Agitans" the case of Major H. that he has described in an earlier chapter called the "History of Paraplegia."³⁶ While his

³⁵ It is always thorny to describe a book as a first example of a genre; Cooke's book has been viewed as germinal because of his efforts, in his summing up of knowledge about nervous diseases, to incorporate their structural and pathoanatomic aspects. William F. Bynum, noting that Cooke entitled his book *A Treatise on Nervous Diseases* rather than *A Treatise on Diseases of the Nervous System*, suggests that Cooke's approach to the subject was functional rather than structural. William F. Bynum, "The Nervous Patient in Eighteenth- and Nineteenth Century Britain: The Origins of British Neurology," in William F. Bynum, Roy Porter, and Michel Shepherd, eds., *The Anatomy of Madness: Essays in the History of Psychiatry* (London: Tavistock, 1985), vol. I, pp. 89-102, p. 92.

³⁶ Cooke refers to this case as one of "anomalous paraplegia, which Dr. Hutchinson has been kind enough to communicate to me," *Treatise on Nervous Diseases*, p. 242. I describe it as his case not because he treated it, which he did not, but because he chose to include it, to diagnose it, and to reclassify it. His

primary goal here is to introduce his readers to the new disease, the shaking palsy, with which he assumes they may be unfamiliar, he is also attempting to extend that disease concept to accommodate the manifestations of an atypical case:

“Major H. in the 45th year of his age, experienced a paralytic affection of the lower limbs, rendering him unable to direct their movements, coming on in paroxysms, after the exercise of walking for two or three miles. On these attacks he was always under the necessity of catching hold of something by which he might support himself by his arms, or of quickening his pace to that of running, when, after a short time, if not supported, he fell to the ground. After such exertion, he always complained that his limbs were so heavy that he was unable to raise them, but he experienced no head-ach [sic] or giddiness, or disorder of the senses.

For two or three years previous to the first occurrence of this disorder, he had complained that his state of health was deteriorated, although no precise symptoms of disease could be pointed out. His appetite was good, his bowels regular, though inclined to costiveness, and his usual robust appearance was not diminished. He entertained some fanciful notions respecting the state of his health ; and from some uneasy sensations about the sacrum, he supposed that he had internal hemorrhoids, though no evidence of their existence could be perceived by his physicians, by whom he was considered as hypochondriacal.”

The lack of a visible cause of his symptoms induced his physicians to doubt the reality of Major H.’s disease, until it progressed to the point of disabling and, ultimately, killing him:

“After having suffered the attacks above described, very often, for two or three years, he gradually lost the power of walking without some support from one of his hands, though the shoulder of a boy of ten years old was sufficient for him to lean on. He still complained of the extreme heaviness of his limbs, which he could not lift from the ground without assistance. In this state he continued for four years : he then went to Bath and had the hot water pumped upon his loins. Soon after this he complained of pain in the loins, which was followed by a collection of fluid behind the great trochanter [part of the femur] of the left thigh, which burst externally, and was discharged daily in considerable quantity. The paraplegia was now complete, the lower extremities being quite useless; the faeces and urine, which, for a considerable time past he had with some difficulty retained, came away involuntarily ; his strength rapidly wasted; he became much emaciated; and, at the end of three months after returned from Bath, he died ;

retroactive reclassification may reflect the fact that the book was originally printed in sections and that he was re diagnosing a case he had already published.

retaining use of his senses and his intellectual faculties to almost the last instant of his life.”

For a modern reader, the juxtaposition of Cooke’s summary of the manifestations of Parkinson’s shaking palsy with his reclassification of Major’s H.’s case as Paralysis Agitans is startling. Like the illnesses of the two women described in *The London Medical and Physical Journal*’s review, Major H.’s illness differs substantially from the paralysis agitans that Parkinson, or for that matter Cooke himself a few sentences earlier, had described. It includes manifestations that Parkinson did not describe and excludes several that he specified. Major H. is younger than the patients Parkinson described; his gait is hurried because of weakness of the lower extremities that threaten to make him fall. There is no tremor, agitation, or salivating; even at the end, there is no suggestion that his upper extremities are affected.

Cooke attributes the “foundation for [Major H.’s] disease” to “the hardships of a military life, particularly to the extremes of heat and cold in various climates,” but he observes that “the immediately-exciting cause of it was not ascertained, the body not having been examined after death.” Cooke’s implication, or hope, is that the exciting cause *would* have been found had the body been opened: that the pathoanatomy would reflect, and explain, the disease. But, because the body was not opened, but also because paralysis agitans had no known definitive pathoanatomy for the Major’s lesion to correspond to, Cooke had no standard or criterion to use for determining whether Major H. had or had not suffered from the disease Parkinson described. Having only a written description of Major H.’s illness to help him decide whether it was actually paralysis agitans, Cooke was left to surmise that it was.

Cooke was an astute clinician and reader who would not have linked Major H.'s illness to paralysis agitans without grounds for considering it a plausible example, or least a plausible variant, of that disease. He is different from the reviewer in the *London Medical and Physical Journal*, who was in essence trying to generalize about therapeutics for different conditions producing pressure on the spinal cord. Cooke was actually diagnosing Major H. as a sufferer from the shaking palsy. That he did so should convey to current readers how difficult it would have been for Parkinson's contemporaries to discern in any sure way whether patients in front of them, or as in this case, patients they were reading about, truly demonstrated the disease Parkinson had described.

The next refinement of the shaking palsy occurred in a lecture by John Elliotson given at St. Thomas's Hospital, where he was a staff physician.³⁷ This lecture was later published in a relatively new publication, the *Lancet*, in 1830, and was subsequently excerpted elsewhere; his remarks on the shaking palsy appeared, in slightly different formats, in several articles in the *Lancet* and other publications.³⁸ Elliotson's version of

³⁷ "St Thomas's Hospital, Clinical Lecture Delivered by Dr. Elliotson, October 11, 1830," *Lancet* 1830; 15(372): 119-24; Elliotson, who received his M. B. and M. D. degrees from Cambridge, was a popular lecturer in London and a very early advocate of auscultation and user of the stethoscope; in 1823, he founded the London Phrenological Society and later became a famed and accomplished mesmerist. William Thackeray dedicated *Pendennis* to him, in gratitude for saving his life. See George Rosen, "John Elliotson, Physician and Mesmerist," *Bulletin of the History of Medicine* 1936; 4: 600-3.

³⁸ See, for example, as well as the lecture noted above, "St. Thomas's Hospital, Case of Paralysis Agitans, or Shaking Palsy, Treated with Carbonate of Iron," *Lancet*, 1827; 8(211): 766-7; J. Elliotson, "On the Medical Properties of Subcarbonate of Iron," *Medico-Chirurgical Times* 1827; 13: 232-53; "Hospital Reports: St. Thomas's Hospital—Paralysis Agitans," *London Medical and Surgical Journal* 1832: 1; 605-7; John Elliotson, "Clinical Lectures," *Lancet* 1831: pp. 289-97; 557; and 599; J. Elliotson, *Notes of a Course of Lectures on the Practice of Medicine* (London: S. Highley, 1830), pp. 138-9; John Elliotson, "Lectures on the Theory and Practice of Medicine: Diseases of the Head and Nervous System," *London Medical Gazette* 1833; 5: 433-7; and John Elliotson, *Principles and Practice of Medicine* (London: J. Butler, 1839). The *Lancet*, first published (and often written) by Thomas Wakely in 1823, initially had such a strong reformist political agenda, and even screedlike and ridiculing tone, that it was rarely excerpted and was occasionally dismissed, though much of its medical reporting was admitted to be of high quality. After 1850, when the tone had moderated and the rigor of the periodical increased, it became increasingly

the shaking palsy also emanated from London: he too was a Londoner and a member of the London Medical and Chirurgical Society in 1817. He too would likely have known Parkinson, if not personally, then at least from a distance and by reputation.

Elliotson begins by citing Parkinson:

“The best account of this disease that I have seen, is one given by a general practitioner, now deceased, of the name of Parkinson, a highly respectable man, who wrote an essay upon the subject in 1817, from which I have derived nearly all I know upon the complaint.”³⁹

Interestingly, Elliotson doesn't credit Parkinson with identifying the disease, nor does he mention the other accounts among which Parkinson's is the “best” and from which he has presumably also gleaned information. The reader or listener is left with the idea that Parkinson reviewed and summarized information about the disease, albeit well, rather than that he essentially constructed it.

From here, Elliotson quotes and summarizes Parkinson, listing the main manifestations of the disease that Parkinson listed: the tremor, the weakness, the bending forward of the head and neck, the running gait, the unimpaired intellect, the beginning of the disease in one extremity and spread to the other three, the ability of the sufferer to stop the tremor temporarily with an effort of will. He then compares the disease to chorea, or St. Vitus's dance, noting the similarity that “if [the tremor] happen to remit in one part of the frame, it soon increases in another,” and that “[t]he disease agrees in another

influential. See Jean and Irvine Loudon, “Medicine, Politics, and the Medical Periodical, 1800-1850,” pp. 61-2.

³⁹ “Clinical Lecture Delivered by Dr. Elliotson, October 11, 1830,” *Lancet* 1830; 15(372): 119-24, p. 120. Later, on p. 121, Elliotson says, “It does not appear that the disease of which I am at present speaking, was well characterized or distinguished before Mr. Parkinson wrote on the subject. The peculiar characters which mark the shaking of drunkards, as different from the diseases of muscular agitation, had been pointed out by Galen, and many others since that time, but paralysis agitans was not well defined before the essay of Mr. Parkinson.” Elliotson here again suggests that Parkinson summarized the disease better than previous writers, but not that, before him, the disease as such had not been characterized at all.

respect with chorea, or St. Vitus's dance, that the shaking ceases during sleep, though when very strong indeed, the shaking continues, whether the patient be asleep or awake." Here, Elliotson diverges from Parkinson's description: regarding persistence in sleep, Parkinson did not distinguish between weak and strong contractions; he simply said that tremors persist in sleep.

A bit later, when paraphrasing Parkinson's description of the inexorable progression and inevitable lethality of the disease, Elliotson says,

"... Such is the melancholy progress of the disease when it continues to extend beyond the part originally affected, though frequently it does not increase at all. You may often see persons with the head constantly shaking, while no other part of affected, in whom the disease has existed to the same degree and extent for many years. Sometimes, also, you may observe persons, one of whose hands only is, for many years, agitated. Mr. Parkinson relates a curious case in which there was also hemiplegia, but only one of the two diseases was present at a time, for which the hemiplegia commenced in the agitated parts, the shaking ceased; and on the cessation of the hemiplegia, the shaking recommenced."⁴⁰

Here again, Elliotson diverges from Parkinson's description, confounding two kinds of tremors that Parkinson would have distinguished: tremor of the extremities at rest, and isolated tremor of the head at any time. Only the former would have been a sign of the shaking palsy to Parkinson; the former suggests an inexorable disease to Parkinson; the latter is another kind of tremor for him, and it happens to be benign. By combining these two kinds of tremors, which have different courses, into the disease picture of the shaking palsy here, however, Elliotson contradicts and disturbs Parkinson's specifications of the disease's progressive nature, time course, and ultimate lethality, leaving the reader to believe that the disease has variants that stop with a tremor of the head or one hand.

Elliotson also presents the epiphenomenal hemiplegia of Parkinson's Case VI, which was a two-week episode in a twelve-year course of disease as Parkinson recounted

⁴⁰ "Clinical Lecture Delivered by Dr. Elliotson, October 11, 1830," pp. 120-1.

it, as if it repeatedly alternated with the manifestations of the shaking palsy, with one syndrome eclipsing the other and then receding. This was not the case, and it suggests a relapsing and remitting quality to the shaking palsy that is the antithesis of what Parkinson described. Parkinson was clear about the disease's relentless and cumulative character, and case VI was not an exception.

Next, Elliotson presents a case: the patient F.E., age 38, a former schoolmaster who "has been accustomed to drink hard at different periods of his life." Already, before presenting a single symptom, Elliotson has diverged from Parkinson, whose cases were of older men and who specified that the disease occurred in older people.

"It is the right upper extremity which is now affected, but though the right lower extremity is not in agitation, it is occasionally retracted as he walks . . . The disease began in the head and tongue, but when the right upper extremity was affected, it left the head. This peculiarity distinguishes the present case, that the tongue is one of the parts that were first affected. In general this is not the case, and the tongue is not affected, after many people have suffered severely. The head now shakes very slightly only. The affection of the tongue is attended by the following very curious result. Whenever the man attempts to speak, the tongue begins to quiver like the tongue of a serpent; presently a confused murmur is heard, and then suddenly he brings out his words with extreme rapidity; and such is the effort that he cannot stop himself, but repeats the last words again and again. It is a phenomenon analogous to the running which occurs on the attempt to walk. He cannot manage the muscles at all, without a violent effort, such that his tongue gets as it were into a run; the common expression of a tongue running, when a person makes a good use of it, is really applicable to this patient . . . He sleeps very well, and in all other respects, except this shaking of the body, he is in tolerable health."⁴¹

Here again, the picture is not what Parkinson would have described as a case of the shaking palsy; it presented in a young man rather than someone old, was primarily observable in a disorder of the tongue and speech, and it lacked the characteristic tremors of the extremities and gait.

⁴¹ "Clinical Lecture Delivered by Dr. Elliotson, October 11, 1830," p. 121.

Early in his lecture, Elliotson credited Parkinson as the source of most of what he knew about the shaking palsy; the implication was that he would not deviate in his lecture from what Parkinson had described, but he did. Without comment he changed the disease picture, adding non-progressing head tremors and altering the disease's range of prognoses. In the case ostensibly illustrating this disease that Parkinson had characterized, he included a tongue tremor and rapidity of speech and repetition of words but excluded resting tremors of the extremities and the festinating gait. Where the early reviewers and Cooke had summarized Parkinson's description without making changes, except for the *Gazette of Health's* inept but probably unintentional substitutions in terminology, Elliotson here, in the guise of summarizing, has actually made apparently subtle but actually substantial changes in the disease picture.

This is different from attempting to diagnoses as suffering from the shaking palsy someone whose signs and symptoms don't quite fit the description by Parkinson. Such discussions do not dispute or attempt to amend Parkinson's list of manifestations, but are rather phrased in terms suggesting atypicality of presentation. Elliotson does amend the list, but he does not acknowledge that he is doing so. The amendments, which are not minor, are totally elided. This divergence is important for two reasons: first, because it purports to represent and replicate Parkinson's description of the disease but does not, and thereby obscures it; and second, because Elliotson's version was the next step in the broader dissemination of the disease picture, an important element in the early thread of transmission. His version, published in the *Lancet*, was widely influential; it was the version that people without access to the *Essay* or old reviews would know about, and it

represented a major modification of what Parkinson had written when he was no longer available to dispute it.

The cases presented by Cooke (Major H.), Elliotson (the schoolmaster), and the *Essay's* reviewer in the *London Medical and Physical Journal* (the two women with disturbed menses) serve as good representations of how knowledge is furthered—and in this case, how the disease picture of the shaking palsy was modified and reconfigured—through the examination of specific, sometimes atypical, examples of what is supposed to be a clear general category. Perplexing and unique cases were compared with the general picture Parkinson had presented and tried for fit, a process that tested whether the disease concept corresponded well enough to the individual case to provide a satisfactory explanation of its symptoms and a plausible diagnosis for labeling the disorder.

The process of winnowing such cases by classifying them in print as shaking palsy or not shaking palsy, and then debating the classifications, allowed practitioners gradually to refine the disease concept of the shaking palsy. It helped them to determine when a sign or symptom was, in a sense, a *sine qua non* for the diagnosis, and when a sign or symptom that Parkinson had not described actually precluded the diagnosis if it were present. In the absence of a characteristic lesion to search for, this winnowing was quite difficult.

The result was a dialectical process, in which the disease concept was tried out, case by case, in individual practitioners' practices, tested for utility, assessed, rethought, and adjusted when necessary. The resulting new refinements of the disease concept were then periodically consolidated in published summaries of the state of knowledge about the disease at that particular time, of which Cooke's book was an early example. Thus, in

an iterative and dialectical way, refinements in the disease conception, which were developed mostly in the periodical literature and included journal articles, reviews, and case reports, alternated with periodic summings-up of knowledge found mostly in books (and, as the nineteenth century progressed, textbooks) and compendia, before further reshaping could occur and the process could repeat. Clinical application clarified where the disease concept contributed something useful and new, and through the accumulation of individual case reports, helped to refine knowledge about the disease.

This gradual reshaping of the disease concept is visible to us in journal articles and case reports from the decades after the *Essay* appeared, in which practitioners, sometimes in some perplexity, report cases of patients with abnormal movements and label their problem the shaking palsy or paralysis agitans. Many of these patients, like Major H., Elliotson's schoolmaster, and the women described in the *London Medical and Surgical Journal*, did not have precisely the same signs and symptoms as Parkinson's cases, raising the question of how an "atypical" presentation of the shaking palsy could be diagnosed with confidence.

Parkinson himself demonstrated this kind of reasoning in his recounting of Case VI, the most detailed of the *Essay*'s six cases, who developed a transient paralysis that temporarily extinguished his resting tremor. When the transient palsy abated, the resting tremor returned as it had been.⁴² Though he is not explicit about it, Parkinson presents this episode of paralysis as a kind of interlude during which the shaking palsy temporarily ceased some of its effect, only to resume when the interrupting condition resolved. The intervening paralysis is treated as an epiphenomenon that temporarily masks, or

⁴² James Parkinson, *An Essay on the Shaking Palsy* (London: printed by Whittingham and Rowland, Gaswell Street, for Sherwood, Neely, and Jones, Paternoster Row, 1817), facsimile edition (London: Dawsons of Pall Mall, 1966), pp. 15-16.

modulates, the underlying disease. Crucially, Parkinson does not suggest that it is part of the disease, or an atypical manifestation in a single patient of a variant of the disease. He seems sure that it is something else: a different, more or less irrelevant and temporary kind of palsy, that is not one of the many manifestations of the disease that develop over time. How he knows this he does not say.

For other practitioners to be able to recognize the disease and to use and apply the diagnosis of the shaking palsy to the patients who consulted them, the plausible spectrum of atypical presentations of the disease ultimately had to be adjudicated, with the goal of somehow clarifying the boundaries of the disease concept, determining what it could be expanded to include, and, conversely, determining which signs, when present, indicated that the problem was actually another disease. Over the second half of the nineteenth century, this process of winnowing disease presentations and of assigning the collection of a particular patient's signs and symptoms to a particular disease category was instrumental in enormously expanding the number of specific named neurological conditions. The number of such named entities increased quickly, a consequence of the ever finer splitting of syndromes into sub-syndromes.

For practitioners, differentiating between an atypical presentation of one rare disease and an example of another rare, but somewhat similar, disease would have been extremely challenging when there were no rules or criteria for determining where to set the boundaries between diseases. In the case of the shaking palsy, there continued to be no characteristic lesion or pathology that could assist practitioners to separate individual variants and atypical presentations of the shaking palsy from conditions that were superficially similar but different diseases altogether. Placing boundaries between such

conditions would necessarily have seemed arbitrary and challengeable, especially when there was no clear therapeutic utility to placing the boundaries in particular places. Further complicating the correct applying of the diagnosis was the fact that the only information practitioners had about the shaking palsy was in the form of words, while the process of recognizing the disease was visual. Parkinson had skillfully described what a person suffering from the shaking palsy looked like, but even so, there is a considerable distance between the comprehension of written words and the confident recognition of a pattern of observable gestures, posture, and movement.

Had the diagnosis not retained some kind of utility as a category for clinicians, however, it would have disappeared during this period. Practitioners' frustration and lack of certainty about when to apply the diagnosis would have slowly doomed the disease concept; they would have ceased to use the diagnosis, or the idiom, and they would have employed other diagnostic categories and disease concepts to explain their patients' abnormal movements.⁴³ Because the correctness of the diagnosis could not be adjudicated by postmortem examination or examination of pathoanatomy, there had to be an alternate way of doing this, a kind of parallel path. The parallel path was, as it had been in Parkinson's work on lightning and in the original formulation of the shaking palsy, the method of "thinking in cases."

The riskiest time for a disease concept is likely just after it is hatched, when it is unclear whether anyone other than its author will find it compelling enough to discuss in print or apply to patients. In an analogy to the high rates of infant mortality in this era, the

⁴³ On the idea of persuasion and rhetoric, see David Harley, "Rhetoric and the Social Construction of Sickness and Healing," *Social History of Medicine*, 12(3): 407-43: "All practitioners, from university graduates to village wise women, had to provide explanations that satisfied those who consulted them, so that the writing can profitably be seen as competition for the control of meaning rather than as simply self-advertisement," pp. 414-5.

most dangerous time for a disease concept was likely when it was still a newborn. To survive, it would need to take root and grow, to mix a metaphor, and it could not do this if practitioners did not find it useful enough to discuss and write about. In a “tipping point” kind of way, as Ludvik Fleck indicated, once a critical mass of use and discussion has occurred, a concept becomes part of accepted knowledge and collective consciousness, a familiar tool. But before the tipping point has been reached, it is in jeopardy.

Parkinson’s concept of the shaking palsy was able to make and retain a place for itself among useful diagnoses and thus to survive. In spite of the appearance of the *Essay* in only a single small edition, Parkinson was practicing in an intellectual community in which the ideas published in the *Essay* could take root, initially through publications written by people who knew him personally, often through shared membership in learned or professional societies.⁴⁴ These acquaintances fortuitously, through their intellectual networks of print, had the tools to make the ideas known to a greater number of readers, enough for the concept to find and place and remain in the greater medical consciousness. His ideas were granted enough space in print, and often enough discussed in the time just after the *Essay*’s publication, that the concept became adequately known. After its newborn period, when it had been sustained by reviews and discussion by Londoners, the idea of the shaking palsy was kept active, so to speak, by the continuing debates about what it really was and what it really looked like: the discussion of cases.

In 1831 Thomas Gowry, a physician and member of the Royal College of Surgeons from Dublin, published a brief article entitled “A Case of Paralysis Agitans

⁴⁴ Parkinson’s *Essay* never went into a second edition, and it is unlikely that the initial edition was over 1000-1500 copies.

Intermittens” in the *Lancet*.⁴⁵ Noting that “[t]he following case seems to me to possess some singular features; at least I have not seen in any of the Dublin or Edinburgh Hospitals a case of palsy resembling it, nor can I find an account of such as case in books[,]” he described the case of a young woman who had consulted him:

“Ann Travers, aetat. 26, of sanguine temperament, came to my house June 18th, 1831, affected as follows: -- Involuntary tremour of the upper and lower extremities, continuing for about five or six minutes, occurring about twice or thrice every hour, and attended with complete loss of power of limbs; muscles of lips [a]re rapidly and spasmodically brought into contact during the paroxysm, and tongue partially protruded, with a corresponding sound, and inability to articulate; orbicular muscles of the eyelids, during some of the paroxysms, are similarly affected; paroxysm terminates in a heavy sigh, and sensation of sinking about praecordia. During intermission is able to raise hands to head, but this is done slowly, and with consequent fatigue. There is vertigo, heaviness of the head . . . I directed my attention to the spine, when I found tenderness on pressure of lower cervical vertebrae, but she does not direct to them herself.”

Gowry’s use of the Latin term *paralysis agitans* indicates his familiarity with the disease Parkinson described, if not with the *Essay* itself; unlike the term “shaking palsy” that had been applied earlier to many different conditions, “*paralysis agitans*” could be traced, if sometimes indirectly, to Parkinson’s work.

Gowry’s description shows him wrestling with a case that doesn’t fit any of the diagnoses he is familiar with and applying to it a new one, to see whether it fits. It doesn’t, exactly, so he modifies the disease’s name, adding “*intermittens*” to show that what he is describing is a variant. In this respect he is using the format of the case report to communicate something unusual that he has seen, a kind of wonder, but also to create new knowledge. He does not merely report an atypical case of *paralysis agitans*, thereby expanding its boundaries; he names a new disease, creating a subtype of *paralysis agitans* that is intermittent.

⁴⁵ Thomas C. Gowry, “A Case of Paralysis Agitans Intermittens,” *Lancet* 1831; 2:651.

The question is why it is merely the intermittency that he focuses on as atypical; certainly the age of the patient does not correspond to Parkinson's description, nor does another fact that he reports, the young woman's complete recovery within weeks. But this could make sense if Elliotson's rather than Parkinson's were the version of the shaking palsy he had read about: Elliotson's picture of the shaking palsy allowed for mild and possibly reversible cases in young people, whereas Parkinson's did not.⁴⁶ Given Gowry's submission of the case to the *Lancet*, he may well have learned of the entity from Elliotson's *Lancet* article the year before but never read Parkinson's *Essay*.

In 1836, Marshall Hall published *Lectures on the Nervous System and its Diseases*, a book that included a section about paralysis agitans:

592. "I must now draw your attention, very briefly to another disease of the spinal marrow [cord],-- Paralysis Agitans. Its symptoms have been well described by Mr. Parkinson; but its morbid anatomy has not been traced. It is usually a disease of advanced life.

593. Paralysis agitans is either—

1. General; or

2. Hemiplegic.

594. The first symptoms of this *insidious* disease is [sic] weakness and tremor, of the head, for instance, of hand, &c. In about a year, the other hand, or a lower extremity, is affected, or the patient loses his balance in walking. Generally no cause can be assigned.⁴⁷

Except for describing the disease as sometimes unilateral, and as sometimes beginning with the head, Hall's summary of the manifestations of paralysis agitans, which goes on for another page, accords with Parkinson's description. Before going on to the next variety of problem, the *tremor mercurialis*, however, he presents a case:

598. Of the hemiplegic paralysis agitans, I have long had an interesting case under

⁴⁶ Elliotson says, "In many cases the disease is controllable by art; it ceases on active treatment. In young persons I have often seen it cured." "Clinical Lecture Delivered by Dr. Elliotson, October 11, 1830," p. 121.

⁴⁷ Marshall Hall, *Lectures on the Nervous System and its Diseases* (Philadelphia: E.L. Carey & A. Hart, 1836), pp. 199-200.

my care:

599. ----Macleod, aged 28, is affected by weakness and agitation of the right arm and leg, augmented on any occasion of agitation, and on moving: it is observed as he walks, or when he passes his cane from one hand to another:-- there is, besides, a peculiar lateral rocking motion of the eyes, and a degree of stammering and defective articulation.

This is the extent of the case; Hall does not discuss it further. It is presented so briefly that it sounds abrupt, but that is consonant with the tone of the rest of the work. His book, however, is a hybrid form, combining the more formal aspect of a summative text and the less formal aspect of transcribed lectures. The numbered structure, evocative of some of the older nosological compendia's hierarchically arranged lists of symptoms, suggests distance and precision, while the appending of an individual case suggests spontaneity.

Hall's contribution formalizes unilaterality, not simply as a variant of *paralysis agitans* represented in the atypical case of Mr. Macleod, but as one of the disease's two classes. He presents the case as if to illustrate unilaterality as a type, but he is actually generalizing from a case that doesn't actually fit the disease picture as previously described, creating the class to accommodate his case and thereby expanding the category of *paralysis agitans* altogether.

Recent studies of the case report format have revealed the utility and multiple functions of the format for furthering medical knowledge.⁴⁸ The format is flexible enough

⁴⁸ See, for example, John Forrester, "If p, Then What? Thinking in Cases," *History of the Human Sciences* 1996; 9: 1-25; Jan P. Vandenbrouke, "In Defense of Case Reports and Case Series," *Annals of Internal Medicine* 2001; 134: 330-4; Peter P. Morgan, "Why Case Reports?" *Canadian Medical Association Journal* 1985; 133: 353; and Rachel A. Ankeny, "Using Cases to Establish Novel Diagnoses: Creating Generic Facts by Making Particular Facts Travel Together," in Peter Howlett and Mary S. Morgan, eds., *How Well Do Facts Travel?: the Dissemination of Reliable Knowledge* (Cambridge: Cambridge University Press, 2011), pp. 251-272. From the point of view of the 'history of the book'—or, more broadly, of printed information-- and specifically of the significance of developments in formatting (bundling similar types of information by subject or by alphabetical order, indexing, and developing templates for the systematic recording of the data that become, and can eventually be published as, cases), see Volker Hess and Andrew Mendelsohn, "Case and Series: Medical Knowledge and Paper Technology, 1600-1900," *History of Science* 2010; 48: 287-314.

to allow the recounting of cases describing symptoms or symptom complexes for which there is not yet an explanation. For disease concepts that are already relatively fixed, the format allows the inclusion of anomalies that implicitly challenge the existing boundaries of disease category, in a way that permits the disease concept to remain intact but also to accommodate atypicality.

The concept of the shaking palsy is an excellent construct for examining this process and the different functions of the case report. It was a named and carefully characterized syndrome, but one that appeared sporadically; there was no epidemic occurrence to assist observers to group sufferers and to alert observers to new cases. It was characterized early among diseases of its type, and its currently-accepted pathology and physiology were explained late, with approximately a full century during which methods other than pathoanatomical correlation were needed for keeping the concept viable. For a century, thinking in cases allowed the disease concept to continue, without insisting that it have a visible biological explanation.

As Rachel Ankeny has shown, case reports provide a way for facts to travel together while their connection remains unclear.⁴⁹ Ankeny envisions case reports as vehicles in which certain facts that seem to occur together can be accommodated. The case reports function like trains, with individual facts (or in case of the shaking palsy, signs and symptoms) traveling together in the same direction, but in separate cars. From report to report, some facts remain, traveling together, while new ones enter the train or debark. Some are upgraded to permanent status; others so frequently travel together that they become a single car. Facts can join the train later, after its initial departure, or be deleted later, so that the original concept or case is not the version that necessarily, or

⁴⁹ Ankeny, "Using Cases," pp. 251-272.

even generally, prevails. A balance shifts when enough of the accumulated information gleaned from individual cases directs the disease picture subtly to another profile, one missing some original features and including some new ones.

Seemingly unrelated or heterogeneous findings can be grouped together in case reports without requiring an explanation for their grouping, other than that they are observed together. Such groupings, or syndromes, are often nosologically transient and disappear as such, or they are reconfigured when explanations appear or cultural factors modify them.⁵⁰ The process of refining the picture, which Ankeny calls “smoothing,” makes a seeming coherence of the initial disorder, facilitating the generating of hypotheses about why the facts seem to occur in a group. The case format thus provides a safe place for holding a syndrome until it can be fully justified as a disease. In the case of *paralysis agitans*, this was necessary for a very long time, and the process is visible in decades of case reports and periodic attempts at consolidation.⁵¹

In 1837, John Couper described an unusual condition that developed in five workers, all employed by the chemical works of Messrs. Charles Tennant and Co. in

⁵⁰ William F. Bynum defines a syndrome as “consisting of a collection of signs and symptoms that seem to occur together but that do not have a unifying and validated explanation.” William F. Bynum, “Nosology,” in William F. Bynum and Roy Porter, eds., *Companion Encyclopedia of the History of Medicine*, vol. I (London and New York: Routledge, 1993), pp. 335-356, especially pp. 352-4.

⁵¹ The case format also continues its democratizing role in the making of medical knowledge, allowing practitioners who would otherwise not be theorizing in print to contribute their observations to larger, formative discussions. As they fashion narratives about their working and thinking that provide coherence and meaning to the work they do, they continue to add new insights, grounded in practice, to what could otherwise devolve into excessive theory. For a discussion of these aspects of medical case narratives, see Steven Stowe, *Doctoring in the South: Southern Physicians and Everyday Medicine in the Mid-Nineteenth Century South* (Chapel Hill and London: University of North Carolina Press, 2004); and “Seeing Themselves at Work: Physicians and the Case Narrative in the Mid-Nineteenth-Century South,” *American Historical Review* 1996; 101(1): 41-79.

Glasgow, who were exposed to manganese dust.⁵² The first man to be affected worked, like the others, “grinding the black oxide of manganese,” for use in the manufacture of bleaching powder. Couper noted that the surface of the workers’ bodies was constantly covered with manganese, that the air they breathed was “loaded with the fine powder,” and that they swallowed portions of it along with their food. He began with a first isolated case:

“In 1828, a previously healthy young man engaged in this occupation was observed to exhibit symptoms of paraplegia. The loss of power in the lower limbs was at first so slight, that, though perceptible to the bystanders, it was scarcely observed, and never made the subject of complaint by the man himself; but it slowly increased, till at the end of some months he was forced to quit his work. After trying the remedies usually used in such cases without effect, he removed to a distant part of the country, where, at the end of a year, he had, according to report, made little or no progress toward recovery.”⁵³

This is all Couper says about this first man. But after an interval of a year, a second man developed symptoms. No connection having been made between his condition and the manganese, he was permitted to continue working “with the exception of” time he spent obtaining medical care:

“In the following year, another workman, also employed in grinding manganese, and previously enjoying good health, was similarly affected. No suspicion being entertained that the manganese could operate as a poison, this person was permitted to continue his employment, which he did for many months, with the exception of some intervals employed in medical treatment. The paralytic affection increasing, and the former case being recollected, the manganese was at length suspected as the cause. The workman was removed to another department,

⁵² John Couper, “On the Effects of Black Oxide of Manganese When Inhaled into the Lungs,” *British Annals of Medicine, Pharmacy, Vital Statistic and General Science* 1837; 1: 41-2. Couper was Regius Professor of *Materia Medica* at the University of Glasgow. Couper, listing himself as a Professor at the University of Glasgow, describes the Tennant manganese works as “in this neighborhood.” Joung-Wook Lee describes “Couper’s first report of peculiar neurological features similar to Parkinsonian shaking palsy in 5 men grinding manganese dioxide in France.” Joung-Wook Lee “Manganese Intoxication,” *Archives of Neurology* 2000; 57: 597-9,” p. 598. I am unable to find a reference to France in Couper; it is possible that Lee interprets “Messrs.” Tennant as the plural of Monsieur and surmises a French connection.

⁵³ Couper, “Effects of Black Manganese,” p. 41.

and from that time there was no further increase in his symptoms.”⁵⁴

This man did not recover either; after he was withdrawn from the manganese, his condition demonstrated “only a trifling improvement” over a period of seven years. Here, Couper goes on to describe exactly what this paralytic condition included:

“The loss of power is most apparent in the lower extremities, which are so considerably affected that the patient staggers, and inclines to run forward when he attempts to walk. The arms are also weakened, but only to a small extent. The patient complains that in speaking, he cannot make himself heard by persons at a moderate distance, as formerly: and the inability seems to depend, not on any defect of articulation, but on weakness of the voice. There is no deficiency of sensibility in any part of the body; the intellect and external senses are unimpaired; but there is an obvious expression of vacancy in the countenance, apparently from the paralyzed muscles of the face. From the same cause saliva is apt to escape from the mouth, especially during speaking. There is no tremor of any part of the body—no colic—no constipation, nor other derangement of the digestive function.”⁵⁵

Exposure to manganese is now known to produce a syndrome very much like, or perhaps identical to, Parkinson’s disease. Couper was the first to identify this syndrome as resulting from a toxic exposure, though he did not explicitly connect it to Parkinson’s shaking palsy.

Couper’s article describes a syndrome that he does not name except to connect it with exposure to manganese particles. But for someone tracing the conceptual history of the shaking palsy at this time, his description raises a different issue. While many of the early articles purportedly describing the shaking palsy in fact describe syndromes quite different from what Parkinson described, and that he would likely have classed as “not the shaking palsy,” Couper’s report describes a syndrome that conforms closely to

⁵⁴ Couper reports the same signs and symptoms appearing in three other workmen, making a total of five, but that “in them [the last three] the disease was arrested by removing the cause.” Couper, “Effects of Black Manganese,” pp. 41-2.

⁵⁵ Couper, “Effects of Black Manganese,” p. 41.

Parkinson's description, but he does not call this consequence of manganese exposure a shaking palsy.

In reporting his findings about manganese exposure, Couper is clearly situating manganese poisoning among the other, long-familiar, metal toxicities, particularly those of lead and mercury. And by mentioning the signs and symptoms that the five men *don't* have, specifying the absence of tremor, colic, constipation or a digestive problem, he is letting the reader know that this new syndrome is not quite the same as that produced by lead (no colic, no tremor) or mercury (no tremor, in spite of the salivation). But it is remarkably similar, except for the absence of tremor, to the disease Parkinson described.

Couper gives no indication that he has read the *Essay*.⁵⁶ The syndromes, though close to indistinguishable one from another, were not conceptually connected. The poisoning by manganese that Couper described would not be connected to the shaking palsy for a long time. But it raises an interesting issue. The examples of Cooke's Major H., Hall's Mr. Macleod, Gowry's Ann Travers, and Elliotson's schoolmaster allow someone looking back to see the divergence of the clusters of symptoms described by various authors that constitute the cars on Ankeny's shaking palsy train. In fact these signs and symptoms were diverse, and some of them differed substantially from what Parkinson had described, to the point where the question arises whether they all represented illnesses that Parkinson would have deemed "not the shaking palsy." The additions of unilaterality, reversibility, incidence in youth, intermittency, rocking of the eyes, running of the tongue, rapid speech, etc., broaden the disease picture to the point

⁵⁶ There are nonetheless, what could be seen as odd coincidences of idiom and phrase between Parkinson's and Couper's accounts. Like Parkinson's Case IV, whose story ends with "his removal to a distant part of the country," Couper's first case ends when he had "removed to a distant part of the country." There is no citation of Parkinson, and none of the chosen words is unusual, but the similarities leave one wondering. Couper, "Effects of Black Manganese," p. 41, and Parkinson, *Essay*, p. 13.

where Parkinson's original formulation threatens to disappear amidst the diversity.

Looking at Couper's description of manganese toxicity allows one to see a different kind of thread, one with roots in a different framework and a different kind of disease construction: that of poisoning from the outside rather than structural damage on the inside. Only much later would Couper's concept of manganese toxicity and Parkinson's concept of the shaking palsy converge, thereby providing at least one firm epidemiologically-based idea about etiology. In Ankeny's metaphor, Couper has created altogether another train from Parkinson, but oddly, it is one that accommodates the same passengers. Only the names and the hypothesized causes of the conditions are different.

For the first two or so decades following the publication of the *Essay*, it is possible minutely to trace the development and reconfiguration of the disease concept of the shaking palsy. Few enough new publications described the condition that it is possible to follow their trajectory, seeing where a new symptom seems to have become part of the picture, and where others were neglected and seemed to fall off the train without anyone's noticing. For these first two decades, there is a thread, or perhaps a several-strand yarn, that one can follow through the literature, seeing how one author may have influenced the next one to write about the shaking palsy. This period, the one described in this chapter, ends around 1840.⁵⁷

After 1840, the situation would be different. The accounts of the shaking palsy would no longer be so local. Moritz Romberg, for example, and several French and Italian writers would begin to make observations about the condition. Discussions about the disease would no longer form a single traceable thread but would start to form a

⁵⁷ See Elan D. Louis, "The Shaking Palsy, the First Forty-Five Years: A Journey Through the Literature," *Movement Disorders* 1997; 12(6): 1068-72, for further discussion of some of these sources.

weaving or a mesh, with simultaneous but differing versions of the account appearing in different places in a web of mutual influence. If the first 'thread' period represented a kind of linear transmission, with awareness of the conditions spreading identifiably from person to person in London and beyond, the second was more two-dimensional from the start, with information spreading more centrifugally and with less easily perceived directionality of sequence and geography.

It was the first, local, linear period of transmission that represents the crucial survival, perhaps to early adolescence, of the disease concept of the shaking palsy. After this period, its survival was assured, at least for a time, as it had repeatedly entered different domains of discussion and was, in the Fleckian sense, robustly in the collective consciousness.

CONCLUSION

Parkinson identified and described the shaking palsy as a specific, gradually worsening disease of the nervous system quite early among what would later come to be known as neurodegenerative diseases.¹ At the time he was writing, and for many years after, there was no model for the kind of disease he was formulating: a condition seated in the spinal cord that occurred rarely and sporadically, began insidiously, developed over many years, consisted of highly heterogeneous signs and symptoms that had been described separately in the past, and was ultimately lethal. When he grouped these signs and symptoms together, incorporating a protracted time course into his disease concept, he had no external clues about their connection to guide him as there was for so many other diseases: no epidemic occurrence or evidence of contagion; no venereal history; no toxic exposure; no hereditary tendency or constitutional type.

In this sense, Parkinson's postulating of the shaking palsy was something of an anomaly. The disease is different in type from most of the diseases that were being identified and corroborated with consistent pathoanatomic lesions at the time. It is partly for this reason that people looking back at the *Essay* have had difficulty classifying Parkinson and his work, a difficulty exacerbated by the lack of supporting evidence in the form of unpublished documents about his thought process. An intellectually cosmopolitan man who spent his whole working life embedded in an impoverished urban community caring for the poor and mad, he remains a bit of a mystery, still seen by some as a provincial apothecary toiling mostly alone, and seen by others as a proto-modern clinical observer.

¹ This group includes multiple sclerosis, Alzheimer's disease, amyotrophic lateral sclerosis, and Huntington's disease, among many others.

Knud Faber, for example, in *Nosography*, his classic history of nosology, situates Parkinson firmly in the pathoanatomic tradition of the Paris school:

“The clinical scientific movement spread quickly from Paris to other countries. From all parts of the world young physicians flocked to Paris in order to learn the art of stethoscopy as well as anatomical diagnosis, and centers of learning arose in which the principles of research actuating the Paris school were employed in further investigation. The first place in which such a clinical school arose was Dublin . . . Almost simultaneously [in about 1820] new clinical schools appeared in London . . . [At Guy’s Hospital] Thomas Addison and Richard Bright were the leaders and they became the most noted of the “great men of Guy’s,” among whom were also Hodgkin. In Bright’s “Reports of Medical Cases,” published in 1827, he showed for the first time the connection between the anatomical changes in the kidneys and dropsy . . . The names of Addison and [Thomas] Hodgkin also became attached to definite diseases, and the same is true of other physicians who were then practicing in London and Edinburgh, such as Parkinson, Crombie and others. All these English clinicians worked according to the same principles as those that guided the Paris school . . . it was the combination of anatomical and clinical investigation which led to the results which they obtained[.]”²

Faber’s book appeared a long time ago but is still influential, its view having been incorporated into many much more recent works. Its classification of Parkinson among Hodgkin (1798-1866), Bright (1789-1858), and Addison (1793-1860) is telling.

Parkinson was in fact not their contemporary; he was at least a generation older. Nor was he was either a physician or associated with a teaching hospital, as they were. Nor were his conclusions based in pathoanatomy or microscopy. But Faber’s mistake is somehow understandable nonetheless. Parkinson’s delineation of a new disease does evoke the work of those slightly later men, with its sure description of the disease’s manifestations and confidence about its boundaries and specificity.

At a time when the pathoanatomic method was guiding the recognition and validation of new disease concepts, Parkinson had formulated a disease for which he could offer no validating explanation, unlike the physicians Faber listed. There is no

² Faber, Knud. *Nosography in Modern Internal Medicine* (New York, Hoeber, 1924), pp. 50-2.

doubt that the precepts of localism and pathoanatomy guided his search for an explanation for the specific disease he had observed. But he seems mostly to have been guided by a more dynamic conceptual framework than the someone static one of fixed lesions, one that he honed through his work with John Hunter and that envisioned disordered function, process gone awry but not yet necessarily demonstrable by a pathologic change in structure. Parkinson did not need a visible lesion to convince himself that what he was seeing in the shaking palsy was a real disease.

Pathoanatomy was not the basis for Parkinson's formulation the shaking palsy's boundaries. For this he took a different path, one based on methodical observation and on thinking in cases. He identified a disease that one could diagnose only by watching the patient in motion. The pathoanatomic thinking came only afterwards: as an explanation for the disease, perhaps, but not as a way of determining whether the disease was present in a particular sufferer.

Though Parkinson's identification of the shaking palsy appeared earlier than that of other neurodegenerative diseases, his formulation and methods were nonetheless very much a product of both the prevailing ideas about disease specificity during his lifetime and his own particular training and environment. Parkinson was working at a time when the idea of disease specificity was increasingly dominant and beginning to extend to nervous diseases; it was reinforced by, but not identical to, the pathoanatomic view that connected specific diseases to localized lesions. The concept would have informed how he grouped and made sense of the phenomena he observed, both in his medical work and in general, on the street.

Parkinson was fortunate to go through training at a time when there was a growing interaction between surgeons and physicians, with the two groups mingling in London's medical societies, natural scientific associations, philanthropic groups, and hospitals. Medical ideas were suffusing surgical training and vice versa, but the two remained different. Parkinson happened to have the opportunity to associate with London's intellectual medical societies but also to obtain a surgical rather than a medical training, with all its attention to the mechanical and physical workings of the body that could be learned through physical examination, post-mortem evaluation, and even dissecting the dead. In this sense he had the advantages of inclusion in networks of learned discourse at the same time he acquired a basic, tactile understanding of how the body worked.

His extra training in observation, first with John Hunter, and then in his concentrated work on fossils, allowed him to take advantage of a neighborhood that provided an unusual, perhaps even unique, opportunity for observing people with disordered movement in the aggregate and in their natural habitat. These things converged to allow him first to observe, then to recognize, and finally cogently write about a pattern of movement he had not seen described before.

Parkinson's publication of the *Essay* did not immediately alter much in the world of medical practice. Ideas, even good ones, are not necessarily understood, accepted, and applied in practice immediately after they are first expounded. It takes time for them to be assimilated into the frameworks they will ultimately be a part of, and a longer time, once they begin to be applied in practice, for the extent of their utility really to become clear. Some ideas, or disease concepts, languish and even disappear, because no one uses them

and they have not caught on. Of those, some reappear again later, often as if discovered for the first time. But for an idea, or in this case a disease concept, to persist, it must be in relatively continuous use and circulation. It must repeatedly be called to people's attention until its utility is recognized by a critical mass of practitioners, so that its survival is ensured. For a disease concept to survive long-term, it must be flexible enough to retain that utility as the world of medical science and practice changes quickly around it, as occurred in nineteenth-century Europe. It must retain its basic identity while accommodating modification. Otherwise it will be abandoned and replaced by a concept with greater utility.

When disease concepts do survive, they do not do so in a void; they have to remain effective in practice: useful to practitioners for categorizing signs and symptoms in a way that separates them from the chaos of possible disorders, but also useful for explaining and communicating symptoms to patients in a convincing way. Only over time did the idea of the shaking palsy reveal its utility for physicians who were, in the period after its publication, beginning to scrutinize and differentiate disordered movements more than before, connecting them to specific problems in the nervous system. It was this utility that allowed it to survive.

EPILOGUE

Being Remembered as a Forgotten Man: The Discovery, Rediscovery, and Re-Rediscovery of James Parkinson

After the appearance of the *Essay*, in 1817, Parkinson published no known clarifications, amendments, or addenda to his description of the shaking palsy, either in letters or in submissions to medical journals he contributed to. As far as I am aware, never wrote again about the shaking palsy.

Toward the end of his life, Parkinson was honored in several ways, none of them related to the *Essay*. In 1817, he was unanimously elected President of the Society of Apothecaries and held the post for three years. In 1823, he was awarded the Gold Medal of the Royal College of Surgeons, an award that had been instituted in 1802 but never before presented. These were both public honors, indicating that Parkinson's contributions were in fact well recognized during his lifetime. But it was for his work in oryctology rather than medicine that the Royal College of Surgeons recognized him. Parkinson's biographer A. D. Morris quotes the minutes of the court of Assistant of the College describing the decision to honor him:

“In pursuance of the Recommendations from the Board of Curators . . . of granting to Mr. Jas Parkinson, of Hoxton Square, the Honorary Medal of the College in consideration of his useful labours for the promotion of Natural Knowledge, particularly expressed by his splendid work on Organic Remains and of his liberal and valuable information when called upon by the College in its research for Facts relating to the scientific designs.”¹

This situation had not substantially changed ten years later, after Parkinson's death, when his son, J. W. K. Parkinson, published *Hunterian Reminiscences*, the notes from John Hunter's lectures on surgery that Parkinson had taken down in shorthand and later

¹ Quoted from A.D. Morris, *James Parkinson: His Life and Times* (Boston, Basel and Berlin: Birkhäuser, 1989), edited by F. Clifford Rose, p. 130.

transcribed.² On the title page, J. W. K. listed the author, his father, as “Mr. James Parkinson, author of ‘Organic Remains of a Former World.’” Parkinson’s name was still known in 1833, but not for the *Essay*.

Parkinson was a remarkably eclectic man, even for someone living in an era when broad intellectual interests and the bridging of disciplines were common among educated people. His involvement in each of his many areas of interest ran deep: politics, geology, oryctology, medicine, chemistry, even genealogy.³ His published work is voluminous and varied, and it is directed at several different audiences, from the medically, geologically, or politically expert to the not-particularly-educated popular. In each domain, he adapted his prose to his audience, his style in medical and scientific writing being precise, formal, and preemptively modest, and in his popular writing avuncular, prescriptive, and sometimes even scolding. His writing is accessible and immediate, but it is also the product of a writer adept at the use of rhetorical strategies in his writing, of which immediacy, clarity, and the appearance of modesty were no doubt parts.

This published material is nearly all that remains to elucidate his thinking. Aspects of the public man are clear, both from his publications and from the references to him that historians have located in public records: testimony about him that Elaine Murphy has found in the records of Parliamentary Committee hearings; the documents about his parish and workhouse work that A.D. Morris located in the prodigious records of the parish of St. Leonard’s in Shoreditch; brief letters about fossil specimens that

² *Hunterian Reminiscences; Being the Substance of a Course of Lectures on the Principles and Practice of Surgery Delivered by the Late John Hunter, In the Year 1785; Taken in Short-Hand and Afterwards Fairly Transcribed by the Late Mr. James Parkinson, Author of “Organic Remains of a Former World,” &c., edited by his Son, J.W.K. Parkinson, Fellow of the Royal College of Surgeons, in London; by Whom Are Appended Illustrative Notes* (London: Sherwood, Gilbert, and Piper, Paternoster Row, 1833).

³ “A.Z.” [James Parkinson], Letter, *The Gentleman’s Magazine* 1792; 62(4): 291; and James Parkinson, Letter, *The Gentleman’s Magazine* 1792; 62(4): 291.

Christopher Gardner-Thorpe located in the Wiltshire Archaeological and Natural History Society's collection, etc. But the private and inner man is hard to pin down, paradoxically hidden by the sheer number and variety of his published writings. The man himself, the unpublished Parkinson, remains elusive.

Parkinson is thus in some ways a difficult man to write about. Any attempt to write a biography of the man (which this, fortunately is not) becomes a bit stalled and distant from the man himself, patched together from the outside, from a combination of his published writings and the surviving institutional documents that mention him. He recedes into a kind of *tabula rasa* of generality that allows later writers, no doubt including me, to project onto him characteristics that may say more about them, their goals and prejudices, and the medical culture in which they are embedded, than they do about Parkinson himself. Thus, he has been represented as both obscure and famous; solo and networked; provincial and cosmopolitan; protean and specific; wide-ranging and a homebody; a "mere" apothecary [sic] and a celebrated physician [also sic]. Such depictions can serve to further the agendas of the writers, including that of providing the picture of a predecessor whose image can be called on for the fashioning of a historical, or even genealogical, tradition for a medical specialty.⁴

Several factors, aside from the chameleon-ish clarity and variety of his writing, make Parkinson particularly susceptible to this kind of projection. The first is that he truly did inhabit different worlds, crossing the diminishing, but still palpable, class barriers between the kinds of people who had general practices among the poor in the

⁴ On this kind of "genealogy," see, for example, L. S. Jacyna, "Images of John Hunter in the Nineteenth Century," *History of Science* 1983, 21: 85-108, in which Jacyna explores the way representations of John Hunter were used, starting soon after his death, to confer a certain kind of gentlemanly intellectual respectability to surgery.

East End and the kinds of people who established intellectual societies like the Geological Society, for example: a society that had several physicians among its founders but only one surgeon-apothecary. Such boundary-crossing ambiguity creates frustrating barriers for later writers desiring to incorporate him into their traditions or to classify him as a particular type of practitioner or predecessor.

The second issue is that Parkinson is hard to picture. No portrait survives to tell us he looked like, and the absence of an authentic likeness has had surprising resonances in writings about him. A Google search for “James Parkinson,” for example, produces a photograph that has been widely circulated on the Internet as representing the author of *An Essay on Shaking Palsy*.⁵ It cannot represent him, of course; photography had not yet been invented during his life, particularly during his young adulthood.



Not James Parkinson, author of *An Essay on the Shaking Palsy*.

The persistence of this image, not just in the remote recesses of the Internet somewhere, but on the biographical sidelight that comes up when Parkinson’s name is entered as a search term in Google, is fascinating in a way. It is the alleged photograph of a man who in fact died before (though admittedly, only a few years before) photographs existed, but it depicts a man of middle age, an age Parkinson would have been in the late eighteenth century.

⁵ <http://www.google.com/search?client=safari&rls=en&q=james+parkinson&ie=UTF-8&oe=UTF-8>, accessed 3/11/2013.

The persistence of such a clear anachronism is telling about how great the need is for an example of his image, an icon of the man. And this specific image, one that has not only been chosen by someone, but also perpetuated and disseminated by others, is itself telling, in the sense that it illuminates what we want, or need, or believe him to have looked like. As Ludmilla Jordanova has shown in her work on medical portraiture, such representations of practitioners and discoverers were intended to be inspiring and exemplary.⁶ So, even though this image cannot be an authentic likeness of James Parkinson, it paradoxically represents him nonetheless, in a way that one can interrogate. It tells us how his reputation leads us to imagine him. Putting aside the image of the Civil War grimness evoked in Americans by sepia images like this, the photograph suggests a serious but tranquil man, dressed modestly but properly, neatly groomed but not over-fastidious, and looking away from the camera, his mind on something else, probably something important.

Other strategies have been used for depicting Parkinson as well. The line silhouette drawing of a seemingly generic apothecary that illustrates one of Parkinson's popular medical manuals has been, for unclear reasons, used to portray him.⁷ And in an

⁶ See Ludmilla Jordanova, *Defining Features: Medical and Scientific Portraits 1660-2000* (London: National Portrait Gallery, 2000), p. 45: "For centuries, most scientific publications were produced by individuals, so ideas were attached to them rather than to networks or groups. This is not a complete account of actual practice but a statement of conventions, which, even as they have changed, have reinforced a sense of the importance of the individual in science. Furthermore, portraits of individuals were designed to be exemplary—that is, they were intended to inspire others to work hard, to achieve and to prompt admiration in viewers. They were living reminders of what could be done. They also purport to be records, so that highly abstract achievements, which the majority of any population does not understand, are given stable foundation in the bodies of achievers." See also Jordanova's *The Look of the Past: Visual and Material Evidence in Historical Practice* (Cambridge: Cambridge University Press, 2012).

⁷ See Christopher Gardner-Thorpe, *James Parkinson, 1755-1824, and a Reprint of The Shaking Palsy by James Parkinson, Originally Published 1817* (Exeter: Department of Neurology, Royal Devon and Exeter Hospital, 1988), pp. 36 and 38: "*The detail of the apothecary depicted in The Alehouse Sermon may give us an idea of James Parkinson's appearance.*" "The Alehouse Sermon" was a chapter in Parkinson's *The Villager's Friend & Physician, Or, A Familiar Address On the Preservation of Health and the Removal of Disease* (London: H. D. Symonds, 1800). Reinforcing the idea that this image depicted Parkinson is its use,

article entitled, “Seminal Figures in the History of Movement Disorders,” Christopher Goetz and his colleagues, in the place of a photograph of James Parkinson, have placed a photograph of another man named James Parkinson, a photograph that had been erroneously reproduced in the *Medical Classics* edition of the *Essay* published in 1937.⁸ It is a photograph that Goetz and his colleagues know does not depict the writer of the *Essay*. Lest the reader miss that point, it has the word “Counterfeit” printed across the subject’s chest, though of course neither the photograph nor its subject is counterfeit, but only the photograph’s previous label. Each of the three seminal figures in the article is represented first by a portrait and then by a page, or title page, from his work. Parkinson, the middle figure chronologically, is represented by the photograph of the other James Parkinson and the title page of the *Essay*.

Reproducing such a picture, one that is duly captioned as not being of the subject of the article, would be unlikely, verging on unthinkable, were an actual image of Parkinson available. But its presence illuminates the degree to which the neurological tradition of including portraits in historical accounts abhors a vacuum. It thus serves as a place-holder, filling what is perceived as the gap left by the absence of any authentic way to depict Parkinson accurately or confidently.⁹ It is this perceived gap, or rather the perception of a gap, that is both noteworthy and curious.

as a proxy for Parkinson himself, in the twelve-minute film entitled “James Parkinson’s London,” written and directed by David Williams and narrated by Gerald Stern (viewable at <http://www.youtube.com/watch?v=YLeSNtt7-h4>, accessed 1/26/14).

⁸ Christopher G. Goetz, Teresa A. Chmura, and Douglas J. Lanska, “Seminal Figures in the History of Movement Disorders: Sydenham, Parkinson, and Charcot: Part 6 of the MDS-Sponsored History of Movement Disorders Exhibit, Barcelona, June 2000,” *Movement Disorders* 2001; 16(3): 537-40, p. 537.

⁹ See Ludmilla Jordanova, *Defining Features*, p. 47: “[W]hen individual and groups are especially concerned about their public face, it is overdetermined that they will use portraiture as a tool. Once created, portraits can be put to many different uses over which the original participants have no control and which they could not possibly have imagined.”

Images of great discoverers and professional forbears loom large in the professional history of neurology, somehow creating and concretizing a lineage and a network. In a recently published book about neurological eponyms, there are fifty-five chapters, each representing a particular eponym, whether a name given to an abnormality detectable in the neurological examination, an anatomic or pathologic structure, or a neurological disease.¹⁰ Each of those fifty-five chapters but one, the one about Parkinson, is illustrated by an image of the eponymous man.¹¹ Where a picture of him would ordinarily have been placed, Parkinson is represented, as he is in an extraordinary number of other publications, by an image of the title page of the *Essay*. In the absence of an image of the man, the image of the title page has now attained a kind of iconic and metonymic status, standing in for the man, but also reducing him, in a way, to simply the

¹⁰ Peter J. Koehler, George W. Bruyn, and John M. S. Pearce, eds., *Neurological Eponyms* (Oxford: Oxford University Press, 2000). The unique absence of an image of Parkinson does raise the question of why none exists. Though not everyone of his accomplishments sat for a portrait in the early nineteenth century, he certainly was eminent enough in his own time to merit one. The absence is a striking, and it echoes the absence of personal papers and correspondence. In a review of this book in *Nature*, Roy Porter observed, "[S]ome branches of medical science gather more eponyms than others, and neurology is one that gathers a lot of them. This is for the same reasons that so many capes and creeks in Africa are named after Victorian explorers. Around the time that eponym-conferring was the done thing, discoveries aplenty were still there for the making in neuroanatomy and neuropathology, as they were in the geography of the Tropics." Roy Porter, "When it Came to Naming Names [Review of *Neurological Eponyms*]," *Nature* 2001; 410: 304.

¹¹ The eponymous men (they are all men) are Albert Adamkiewicz, Korbinian Brodmann, Henry Head, Alexander Monro [Secundus], Theodor Meynert, Jan Evangelista Purkinje, Theodor Schwann, Franciscus de la Boë Sylvius, Thomas Willis, Augustus Volney Waller, John Cheyne and William Stokes, Harvey Cushing, Jules Froment, William Richard Gowers, John Hughlings Jackson, Robert Bentley Todd, Jean Lhermitte, Joseph Babinski, Giovanni Mingazzini, Johann Hoffmann, Ernst Trömner, Carl Mayer, Paul Hoffman, Jules Tinel, Ernő Jendrassik, Charles Lasègue, Vladimir Mikhailovitsch Kernig, Jozef Polikarp Brudzinski, Ernst Moro, Moritz Romberg, Thomas Grainger Stewart, Gordon Morgan Holmes, William John Adie, Charles Bell, Paul Broca, Charles-Edouard Brown-Séquard, Wilhelm Heinrich Erb, Georges Gilles de la Tourette, Jean-Martin Charcot, Georges Guillain, Jean-Alexandre Barré, Johann Friedrich Horner, Sergei Sergivich Korsakoff, Henri Parinaud, Carl Wernicke, Adolf Wallenberg, Alois Alzheimer, Charcot (represented by his notes in the second reference to him), Hans Chiari, Hans-Gerhard Creutzfeldt, Alfons Maria Jakob, Hans Curschmann, John Langdon Down, Guillaume Benjamin Amand Duchenne, Constantin Alexander von Economo, Nikolaus Friedrich, Bayard T. Horton, George Huntington, and Arnold Pick. The chapter on Parkinson's disease, written by F. Clifford Rose, notes that "This condition is probably the eponymous disease most wisely recognized by the general lay public," p. 335. People who lived earlier than Parkinson who are included in this book are all represented by portraits. Curschmann-Steinert Disease is illustrated with an image of Curschmann, but not of Steinert (1875-1911), who died young.

author of the *Essay*. With that switch, the title page now taking his place, the rest of his many accomplishments and interests recede, and implicitly, he is claimed by neurology.

When Jean-Martin Charcot renamed the shaking palsy “*la maladie de Parkinson*” about fifty years after the publication of the *Essay*, he did more than provide a new name for a long-recognized syndrome. By renaming it, he was connecting a syndrome that Parkinson had first described with his own refinement of that syndrome: his own consolidation. Thus, “*la maladie de Parkinson*” was, ironically, no longer quite the disease Parkinson described. Instead, it was the disease Charcot described, incorporating manifestations like rigidity and mental deterioration that Parkinson had not envisioned as part of the disease picture. One could say that James Parkinson’s disease was really the shaking palsy or *paralysis agitans*, just as he had described it. This new disease, called *la maladie de Parkinson*, which was just a bit different, was, to be taxonomically precise, in fact Charcot’s disease, though it was never actually called that.¹²

When Parkinson described and named the shaking palsy, it was not the fashion for consolidators to name specific disease entities after people, especially themselves. As we have seen, Parkinson took great care in how he named the condition, and he was explicit about why he knowingly appropriated an idiom, from the vernacular English, that was already in use to describe something else, or many different ‘something elses.’ He appropriated it because he thought the condition he was describing fit the idiom better than the conditions it had previously been applied to, neatly combining the disease’s

¹² Another disease that Charcot characterized and that was once known as Charcot’s disease, is now known as amyotrophic lateral sclerosis, or Lou Gehrig’s disease. Lou Gehrig’s disease is one of the very few diseases to be named after a patient rather than a discoverer, something that would almost certainly not have happened had he not already been another kind of hero before developing the disease. In American culture, baseball sometimes trumps even scientific discovery.

characteristic tremor and inability to move into a single name. This name described what the disease looked like, and thus retained the disease concept in a way that would be comprehensible by patients and doctors alike; it related to what they felt and saw. The idiom *paralysis agitans*, though not vernacular, accomplished the same thing, also in neat oxymoronic fashion, combining the same two seemingly contradictory signs that Parkinson had initially linked as visible manifestations of a single disease.

Charcot's naming of the new and reconfigured *paralysis agitans*, the one that included all of what he had discovered to add to Parkinson's picture, was an equally significant act. First, embedded invisibly in his renaming the disease was his belief that it was his right to do so: that it was his disease to rename. He did so in a way that implicitly proclaimed him as the rediscoverer both of the disease and of Parkinson the man. Naming the disease after another man suggested a generous willingness to give credit to another, seemingly underappreciated, predecessor. But in this case, the naming also highlighted the idea that the disease had a history and a tradition, one that was suitable for study in the relatively new specialty of neurology that he, Charcot, was advancing. Charcot did this consolidating and renaming at a time when neurology was still battling with psychiatry for control over contested terrain in the realm of disorders of the mind, brain and nerves, and particularly over conditions that were considered "functional," for which no convincing physiologic/anatomical/pathological explanation had yet been produced. Charcot was thus consolidating his position in the developing specialty of neurology by helping to construct it as a tradition with a particular history, and aligning himself with

that tradition, through adopting Parkinson as a kind of intellectual predecessor engaged in similar pursuits.¹³

Charcot's biographers note that "he named new diseases by their anatomical lesions (amyotrophic lateral sclerosis) or attached eponyms in order to give credit to the original describers (Sydenham's chorea, Parkinson's disease)."¹⁴ In the case of *paralysis agitans*, there was no pathoanatomic lesion to guide Charcot in naming the disease; the lesion, if there really was one, remained elusive. His naming the disease after a predecessor, however, preserved the disease for the specialty of neurology even if, lacking a lesion as it did, it remained "functional." But the renaming also consolidated his own vision of the disease in a way that effectively superseded Parkinson's own vision of it. If Charcot's version was called Parkinson's disease, Parkinson's version disappeared, leaving Charcot's version as the one that remained visible. This issue was exacerbated by the rarity of copies of the *Essay* by this time, a problem Charcot and others complained about. It thus became difficult to locate Parkinson's version of the shaking palsy, not only conceptually but also on the printed page, and thus to distinguish it from Charcot's.

Charcot's appropriation of the disease concept is so subtle and effective that even such seasoned recorders of the history of movement disorders as Christopher Goetz, who has not only written extensively about the history of Parkinson's disease, but is also one of Charcot's biographers, can occasionally slip, as when he describes Parkinson's version as a syndrome including rigidity, when in fact Parkinson did not explicitly include

¹³ Roy Porter suggested as much in his review of *Neurological Eponyms*: "Frank Clifford Rose tells us . . . that it was the French neurologist Jean-Martin Charcot who called Parkinson's shaking palsy *la maladie de Parkinson*—though it may be added that Charcot then went on to stake his own claim to be the definitive codifier of the disorder." Porter, "Naming Names," p. 304.

¹⁴ Christopher G. Goetz, Michel Bonduelle, and Toby Gelfand, *Charcot: Constructing Neurology* (Oxford and New York: Oxford University Press, 1995), p. 18.

rigidity in the disease picture.¹⁵ It was Charcot who mentioned rigidity, and rigidity has become so basic a part of the disease picture, to the point where it is an essential part of the diagnosis at present, that it becomes hard to remember that there was once a version of the disease, James Parkinson's version in fact, that did not include it.

Charcot's renaming the shaking palsy *la maladie de Parkinson*, a name that described neither its pathoanatomy nor its presumed etiology, had other consequences as well. Charcot chose a name that no longer described what the disease looked like. By detaching the name from the disease's signs and symptoms, Charcot was effectively removing the disease from the domain of its sufferers and into the domain of medical practitioners. This was a further step in a process of renaming diseases that had begun long before: of replacing the older, vernacular, and descriptive names of diseases that were comprehensible to ordinary people, and of which "shaking palsy" was an example, with names based on nosologic schemata or patho-anatomy and expressed in arcane and technical language that was inaccessible to the sufferers themselves.¹⁶

The step of renaming diseases after practitioners or discoverers takes the process one step further, out of the patient's experience and body altogether, even the pathologic body, and into the domain of a particular kind of expertise and specialization. This taxonomy is the celebration of one's own predecessors and colleagues, most of whom

¹⁵ Christopher G. Goetz, Teresa A. Chmura, and Douglas J. Lanska, "The History of Parkinson's Disease: Part 2 of the MDS-Sponsored History of Movement Disorders Exhibit, Barcelona, June, 2000," *Movement Disorders* 2001; 16(1): 156-61, p. 156: "Although there are references to tremor in pre-nineteenth-century and even ancient sources, specifically in Hippocrates, Sylvius de la Bøe [sic] (1663, 1680), and Sauvages (1768), the clear clinical description of Parkinson's disease began with the short monograph by James Parkinson in 1817. In this paper, resting tremor, rigidity, and postural reflex embarrassment were succinctly described."

¹⁶ See Mary Fissell, *Patients, Power, and The Poor in Eighteenth-Century Bristol* (Cambridge, Cambridge University Press, 1991), especially pp. 153-9; and "The Disappearance of the Patient's Narrative," in Roger French and Andrew Wear, *British Medicine in an Age of Reform* (London and NY: Routledge, 1991), pp. 92-109, in which Fissell explores the process and consequences of the renaming of diseases, connecting it to the larger devaluing of the patient's narrative, voice, and experience in the diagnosis and treatment of disease.

will be unfamiliar to the public. While this process further removes the name from the patient's grasp, it also serves to extract the disease from the more general universe of diseases and to place it into a more particular tradition: in this case, that of neurology, a specialty that during Charcot's career was undergoing substantial growing pains, in its attempt to clarify, and in a sense to stabilize control over, the diagnosis and treatment of a particular constellation of diseases believed to originate in the nervous system.¹⁷

Charcot was the first to "rediscover" Parkinson, in the sense that he was the first to present Parkinson and the shaking palsy as having been forgotten. He did this instead of simply alluding to Parkinson when discussing the shaking palsy, as the many other people who had written about the shaking palsy had done in the intervening decades. But rediscovering is a different kind of action than citing. Charcot's framing his reference as a rediscovery had implications for his own work and reputation.

Over the next hundred years, Parkinson was framed as forgotten and rediscovered again and again, to the point where the image of his forgottenness itself becomes a trope in his story. About a century after the publication of the *Essay*, in the short essay in the

¹⁷ The crafting of neurology as a domain of special expertise in the second half of the nineteenth century was extremely complex, involving complicated negotiations over contested terrain in problems of the mind and brain, including whether problems of the mind could be treated as, and subsumed under the category of, problems of the brain. The specialty took shape amidst a complicated interplay of developments in physiology and neuroanatomy, localization of neural functions, and pathoanatomy, in the setting of the increasing emphasis on medical specialties and specialized training in the nineteenth century and the sometimes rancorous apportioning of different domains of suffering to the newly differentiated specialties of neurology and psychiatry. See, for example, William F. Bynum, "The Nervous Patient in Eighteenth- and Nineteenth Century Britain: The Origins of British Neurology," in William F. Bynum, Roy Porter, and Michel Shepherd, eds., *The Anatomy of Madness: Essays in the History of Psychiatry* (London: Tavistock, 1985), vol. I, pp. 89-102; Bonnie Blustein, "New York Neurologists and the Specialization of American Medicine," *Bulletin of the History of Medicine* 1979; 53(2): 170-83; George Weisz, "The Emergence of Medical Specialization in the Nineteenth Century," *Bulletin of the History of Medicine* 2003; 77(3): 336-75; Barbara Sicherman, "The Uses of a Diagnosis: Doctors, Patients, and Neurasthenia," *Journal of the History of Medicine and Allied Sciences* 1977; 32(1): 33-54; and L. Stephen Jacyna and Stephen T Casper, eds., *The Neurological Patient In History* (Woodbridge: Boydell & Brewer, 2012).

Bulletin of the Johns Hopkins Hospital that was the first English language account of Parkinson's life, Leonard Rowntree described Parkinson as a forgotten man: "English born and bred, an English physician and scientist, forgotten by the English and by the world at large—such is the fate of James Parkinson."¹⁸

Much later, reminiscing in an autobiography about his life in medicine and about the men he had encountered in his medical career, Rowntree recounted the circumstances of his writing about Parkinson. This section of his memoir has the heading, perhaps only slightly tongue in cheek: "The Rescue of James Parkinson (Discoverer of Shaking Palsy), Lost in Oblivion for One Whole Century." The passage is long but revealing:

"In publishing my article on Parkinson, I opened with the statement, "English born and bred, an English physician and scientist, forgotten by the English and by the world at large—such is the fate of James Parkinson."

At Hopkins I had inquired about Parkinson from Drs. Welch, Cushing and Abel. They all pleaded complete ignorance. In London I asked several medical leaders: all said they knew next to nothing about him. So I decided to see what I could learn.

I visited the British Museum to see what they knew of him. Dame Fortune, always kind to me, directed me to the desk of a Mr. Morley (?) who knew my chief, Dr. Abel. He secured one of Parkinson's books, found his address, 1 Hoxton Square in Shoreditch, and advised me to see the verger at St. Leonard's parish church. Here two one-pound notes got me an active research associate.

He and I went through the old church records, one hundred fifty years old, and found a very complete story of the Parkinson family—the marriage of his father and mother, the births of all the children, and James Parkinson's marriage and the births of his children.

Next we searched the church yard and found the father's tombstone. Then the verger directed me to Hoxton Square where I found the old home, once a magnificent dwelling but now, with its environs, fallen on bad times. I secured a picture of the home and of the father's grave.

On reporting back to Mr. Morley I found that he had unearthed all of Parkinson's books and many of his manuscripts. I spend several days studying them and making excerpts of all that I thought was of interest.

In May, 1911, I presented a paper on Parkinson at the Hopkins Historical Society. To my utter astonishment I learned later that this was to become an

¹⁸ Leonard G. Rowntree, "James Parkinson," *Bulletin of the Johns Hopkins Hospital*, February 1912; 23(252): 33-45, p. 33.

important original source of information on the life of Parkinson, which appeared in the *National Dictionary of Biographies*.¹⁹

Forty-five years later I received a letter from the secretary of one of the royal medical societies, asking me for reprints and for negatives of my pictures. In this letter the writer stated that I “was given credit for rescuing Parkinson from oblivion.” He stated further that on April 11, 1955, there would be held several meetings, all part of Parkinson’s bicentennial birthday ceremonials and that my paper would be the basis for many talks before the Shoreditch Medical Society, the Royal Medical Society, the Royal College of Physicians and the Royal College of Surgeons . . .

As the result of these meetings in London there has just come from the publishers (MacMillan & Co.) an imposing volume entitled, James Parkinson, 1755-1824. In the first paragraph it states, “and it was left to an American historian, Dr. Leonard G. Rowntree, to write the first account of him in 1912.” The complimentary volume was accompanied by a letter which was inscribed and signed by the editor and the three associate editors, reading,

Dear Dr. Rowntree,

This letter and the accompanying volume, prepared under the auspices of Brain to commemorate the bicentenary of James Parkinson, is sent with our best greetings. We recall with pleasure and gratitude that in 1912 you wrote your charming account of James Parkinson, thereby drawing attention for the first time to this fascinating character. Believe us to be,

Yours very sincerely,
Macdonald Critchley,
Francis M. R. Walshe,
J. Godwin Greenfield,
William H. McMenemey.

. . . This proved a wonderful summer. I discovered Europe as of paramount interest to my future, fixed on Friedrich von Müller for further training and rescued James Parkinson from oblivion.”²⁰

The rediscovery of Parkinson seems to occur about every fifty years. Rowntree’s message about Parkinson’s long obscurity, so similar to Charcot’s representation of

¹⁹ Rowntree is referring here to the *Dictionary of National Biography*.

²⁰ Leonard G. Rowntree, M. D., *Amid Masters of Twentieth Century Medicine: A Panorama of Persons and Pictures* (Springfield, Illinois: Charles C. Thomas Publisher, 1958), pp. 145-7. Though it makes a good story, it seems unlikely that Harvey Cushing (1869-1939) would not have known anything about Parkinson or been willing/able to talk about him at this time. Rowntree never says what sparked his interest in Parkinson in the first place—what it was that induced him to start asking around about him. He himself worked with renal function, but as his memoir shows, he seems to have been interested in all aspects of medicine and involved, one way or another, in their development. He is consistently modest in his account, but the panorama of medical people he describes knowing, and the sheer number of discoveries and new therapies he participated in, almost make a reader dizzy; he seems to have been a Zelig of twentieth century medicine. Rowntree was instrumental in the development of renal dialysis apparatus and the first intravenous pyelogram. See Sandra Moss, “Medical History: Dr. Leonard Rowntree of Camden,” *New Jersey Medicine* 1995; 92(9): 596-600.

Parkinson, was echoed in W. H. McMenemey own long biographical essay that appeared in the bicentenary of Parkinson's birth in 1955. According to McMenemey, "A serious biography of [Parkinson] has yet to appear, and it was left to an American historian, Dr. Leonard G. Rowntree, to write the first account of him in 1912: indeed apart from a brief and affectionate reference to him by Gideon Mantell in 1850 he was virtually overlooked by contemporary and subsequent historians."²¹ Parkinson's biographer, A.D. Morris, also writing in Parkinson's bicentennial year, begins a biographical article by quoting Rowntree: "[T]he words "Parkinsonism" and Parkinsonian" have been added to the English language; but Parkinson himself "has been forgotten by the English and by the world at large."²² Rowntree's words, like the idea that Parkinson did not perform physical examinations, has been repeated in innumerable articles.

McMenemey's study has been extremely influential in dictating how Parkinson is now remembered, and much of what he wrote is echoed in the many historical articles that allude to Parkinson's work and accomplishments. In spite of the seemingly celebratory nature of his article, McMenemey uses gratuitously disparaging language to describe Parkinson, aside from calling Parkinson, in his role as a writer of political tracts, "the indefatigable little pen-warrior of Hoxton Square."²³ In one startling passage, he minimizes Parkinson's training in an inaccurate way, misunderstands the point of the

²¹ W. H. McMenemey, "James Parkinson 1755-1824: A Biographical Essay," in MacDonald Critchley, ed., *James Parkinson (1755-1824): A Bicentenary Volume of Papers Dealing with Parkinson's Disease, Incorporating the Original 'Essay on the Shaking Palsy'* (London: Macmillan and Co., Ltd., 1955; and New York: St. Martin's Press, 1955), pp. 1-143, p. 1.

²² A.D. Morris, "James Parkinson," *Lancet* 1955; 265(6867): 761-3, p. 761. Morris died in 1980, before having the opportunity to complete his biography of Parkinson, which does not present Parkinson as forgotten. See A.D. Morris, *James Parkinson: His Life and Times* (Boston, Basel and Berlin: Birkhäuser, 1989), edited by F. Clifford Rose.

²³ McMenemey, "James Parkinson," p. 25.

Essay, and underestimates the complexity of the task of ordering existing knowledge, all in a single sentence:

“But the reason for Parkinson’s writing [the *Essay*] is interesting; it was not so much to draw attention to a new disease, because tremor in association with paralysis had been known to Galen, Sylvius de la Boë, Juncker and Cullen, to all of whose work he refers: it was not to suggest singling out a disease entity from a symptom-complex, nor even to advance a rational plan of therapy; it was because paralysis agitans ‘has not yet obtained a place in the classification of nosologists’. The tidy-minded apothecary had to classify this disease just as he had to classify an encrinite, an organic acid, or a lump of mica schist.”²⁴

McMenemey reverts to the image of Parkinson’s humble status often. It is echoed by Francis Schiller, in his article about the history of Parkinsonian rigidity:

“Now it would be wrong to assume that Parkinson’s little monograph [the *Essay*] passed unnoticed. True, the old doctor practicing in a London suburb—Shoreditch—had little professional standing. A mere surgeon-apothecary, he was a left-liberal to boot, and no portrait of him has even been found.”²⁵

It is difficult to reconcile these images with the man who received the Gold Medal from the Royal College of Surgeons, who was President of the Society of Apothecaries, and who had once stood up to William Pitt the Younger under tense Privy Council questioning. But these passages give a sense of how much the reputation of Parkinson, in the absence of personal papers and a portrait, is in the eye or mind of the beholder.

In his way, Parkinson did tell us how he wanted to be remembered and in whose company he would like to be placed. In the last paragraph of the *Essay*, he said:

“Before concluding these pages, it may be proper to observe once more, that an important object proposed to be obtained by them is, the leading of the attention of those who humanely employ anatomical examination in detecting the causes and nature of diseases, particular to this malady To such researches the healing art is already much indebted for the enlargement of its powers of lessening the evils of suffering humanity. Little is the public aware of the

²⁴ McMenemey, “James Parkinson,” pp. 122-3.

²⁵ Francis Schiller, “Parkinsonian Rigidity: The First Hundred-and-One Years,” *History and Philosophy of the Life Sciences* 1986; 8: 221-36, p. 222.

obligations it owes to those who, led by professional ardour, and the dictates of duty, have devoted themselves to these pursuits, under circumstances more unpleasant and forbidding. . . . [H]ow few can estimate the benefits bestowed on mankind, by the labours of a Morgagni, Hunter, or Baillie.”²⁶

These were men who cared for patients and performed post-mortem examinations, as noted before. But they were also men, like Sydenham, whom Parkinson also admired, who were difficult to pigeonhole socially and intellectually. Like Parkinson, they all bridged several worlds. They had connections among learned men as well as a degree of fame and prestige during their lifetimes, and they demonstrated a zeal for creating new knowledge. But at the same time, they attended to the welfare of their sometimes impoverished patients and did not let their dignity prevent them from getting their hands very dirty.

²⁶ Parkinson, *Essay*, pp. 65-6. In the *Essay*, Parkinson quotes Sauvages, but he cites no contemporary Parisians and does not include any in this group of admirable men; he was well read and familiar with French, but 1817 was not politically a time of francophilia for Britons.

APPENDIX I

James Parkinson's Published Writings

Year	Medical	Political/ Social	Oryctological
1780	<i>Observations on Mr. Hugh Smith's Philosophy of Physic</i> [published anonymously; attributed by some authors to Parkinson]		
1787	"Some Account of the Effects of Lightning," <i>Memoirs of the Medical Society of London</i> 1787; 2: 495-507.		
1792		<p>"Z. A." [pseudonym], Letter [about Sir Hugh Middleton] <i>The Gentleman's Magazine</i> 1792; 62(4): 291-2.*</p> <p>Letter [under his own name, about Sir Hugh Middleton], <i>The Gentleman's Magazine</i> 1792; 62(4): 897-9.*</p>	
1793		<p><i>Pearls Cast Before Swine</i> by Edmund Burke, <i>Scraped Together</i> by Old Hubert (London: DI Eaton, 1793).</p> <p><i>The Budget of the People, collected by Old Hubert</i> (London, 1793).</p> <p><i>An Address to the Hon. Edmund Burke, from the Swinish Multitude</i> (London, 1793).</p> <p><i>The Village</i></p>	

		<p><i>Association, or the Politics of Edley</i> (London, 1793).</p> <p><i>Knave-Acre Association: Resolutions Adopted at a Meeting of Placemen, Pensioners, etc., for the Purpose of Forwarding the Designs of the Place and Pension Club</i> (London, 1793).</p>	
1794		<p><i>A Vindication of the London Corresponding Society</i> (London, 1794).</p> <p><i>Mast and Acorns, The Food of the Swinish Multitude. By Old Hubert</i> (London, 1794).</p> <p><i>Revolutions Without Bloodshed; or, Reformation Preferable to Revolt</i> (London, 1794).</p> <p><i>A Sketch of the Most Memorable Events in the History of England from the Landing of Julius Caesar, to the Reign of William the Conqueror. By Old Hubert. In D. I. Eaton, ed., Politics for the People</i> (periodical, London).</p>	
1795		<p><i>A Sketch, by Old Hubert, Whilst the Honest Poor are Wanting Bread</i> (London: J.</p>	

		<p>Burks, ?1795)</p> <p><i>An Account of Some Peculiar Manners & Customs of the People of Bull-land, or the Island of Contradictions, by Old Hubert</i> (London, ?1795)</p> <p><i>The Soldier's Tale, Extracted from the Village Association: With Two or Three Words of Advice, by Old Hubert</i> (London, NP)</p> <p><i>A Letter from Mr. Parkinson Containing an Account of His Examination Before the Privy Council</i> (London, 1795)</p>	
1799	<p><i>Medical Admonitions to Families, Respecting the Preservation of Health and the Treatment of the Sick</i> (London: H. D. Symonds, 1799; 2nd ed., 1801)</p>		
1800	<p><i>The Hospital Pupil; Or, An Essay Intended to Facilitate the Study of Medicine & Surgery. In Four Letters</i> (London: H. D. Symonds, 1800)</p> <p><i>The Chemical Pocket-Book; or, Memoranda Chemica; Arranged in a Compendia of Chemistry</i> (London: H. D. Symonds, 1800)</p>		

	<i>The Villager's Friend and Physician, A Familiar Address on the Prescription of Health</i> (London: H. D. Symonds, 1800)		
1802	<i>The Way to Health . . . Extracted from the Villager's Friend & Physician</i> (London: H. D. Symonds, 1802) <i>Hints for the Improvement of Trusses</i> (London: H. D. Symonds, 1802)		
1803	<i>The Town & Country Friend & Physician . . . With Cursory Observations on the Treatment of Children</i> (Philadelphia: J. Humphreys, 1804)		
1804			<i>Organic Remains of a Former World</i> , vol. I (London: J. Robson, 1804)
1805	<i>Observations on the Nature & Cure of Gout; on Nodes of the Joints; & on the Influence of Certain Articles of Diet in Gout, Rheumatism, & Gravel</i> (London: H. D. Symonds, 1805)		
1807		<i>Remarks on Mr. Whitbread's Plan for the Education of the Poor</i> (London: H. D. Symonds, 1807) <i>Letter Circulated to the Parishioners in the Parish of St. Leonard's Concerning the Introduction of a Register of Poor</i>	<i>Organic Remains of a Former World</i> , vol. II (London: J. Robson, 1807) Letter [on fossil forms], <i>The Gentleman's Magazine</i> 1807; 72(2): 818.

		<i>Children Seeking Employment</i>	
1808	<i>Dangerous Sports. A Tale Addressed to Children</i> (London: H. D. Symonds, 1808)		
1809			Articles on ‘Geology,’ ‘Oryctology,’ ‘Rocks,’ ‘Shells,’ and ‘Conchology’ in W. Nicholson, ed., <i>The British Encyclopedia; or Dictionary of Arts and Sciences</i> , 6 vol. (London: Longman, Hurst, Rees & Orme, 1809)
1811	[with J.W.K. Parkinson] “A Case of Trismus, Successfully Treated.” <i>Medico-Chirurgical Transactions</i> 1811; 2: 293-7 <i>Observations on the Act for Regulating Madhouses</i> (London: Sherwood, Neely, and Jones, 1811)		<i>Organic Remains of a Former World</i> , vol. III (London: J. Robson, 1811) “Observations on Some of the Strata in the Neighborhood of London, and on the Fossil Remains Contained in Them,” <i>Transactions of the Geological Society</i> 1811; I: 324-54.
1812	[with J.W.K. Parkinson] “A Case of Diseased Appendix Vermiformis,” <i>Medico-Chirurgical Transactions</i> 1812; 3: 57-8		
1814	“Cases of Hydrophobia,” <i>London Medical Repository</i> 1814; 1: 289-92		“Some Observations on the Specimens of Hippurites Presented to the Society by the Hon. H. G. Bennett,” <i>Transactions of the Geological Society</i> 1814; 2:277
1817	<i>An Essay on the Shaking Palsy</i> (London: Sherwood, Neely, and		

	Jones, 1817)		
1819	<i>Observations on the Necessity for Parochial Fever Wards</i> (London, 1819)		“Remarks on the Fossils Collected By Mr. Phillips Near Dover and Folkestone,” <i>Transactions of the Geological Society</i> 1819; 5: 52
1822			<i>Outlines of Oryctology, An Introduction to the Study of Fossil Remains</i> (London, 1822)
1824	[with J.W.K. Parkinson] “On the Treatment of Typhoid Fever,” <i>London Medical Repository</i> 1824; 1: 197-200.		
[Post-humous, 1833]	[edited by J.W.K. Parkinson] <i>Hunterian Reminiscences. Being the Substance of a Course of Lectures on the Principles and Practice of Surgery, Delivered by the Late Mr. John Hunter in the Year 1785 . . .</i> (London: Sherwood Gilbert and Piper, 1833]		

*I have not seen these letters cited before.

[Adapted in part from biographical works including Shirley Roberts, *James Parkinson (1755-1824)* (London: The Royal Society of Medicine Press, 1977), pp. vii-ix and pp. 123-8; and A.D. Morris, *James Parkinson: His Life and Times*, edited by F. Clifford Rose (Boston, Basel and Berlin: Birkäuser, 1989), pp. 194-5.]

APPENDIX II

Apprenticeship Manuals Written for Surgeon-Apothecaries' Apprentices

Examples of manuals written for instructing surgeon-apothecaries' apprentices include:

James Lucas. *A Candid Inquiry into the Education, Qualifications, and Offices of a Surgeon –Apothecary; the Several Branches of the Profession Being Distinctly Treated On, and Suitable Methodical Forms Annexed, Besides Various Other Topics connected with the Principal Office are also Subjoined* (London: Cadell and Davies, 1800).

James Makittrick [James Makittrick Adair]. *Commentaries on the Principles and Practice of Physic. Illustrated by Pathological Tables and Practical Cases. Being An Attempt, on a New Plan, to Connect the Several Branches of Medicine, and to Place the Practice of it on a Rational and Solid Foundation. To Which is Prefixed, an Essay on the Education and Duties of Medical Men* (London: Printed for T. Becket and Co.; and J. Balfour, at Edinburgh, 1772).

Thomas Withers. *A Treatise on the Errors and Defects of Medical Education: in Which are Contained Observations on the Means of Correcting Them* (London: Printed for C. Dilly, in the Poultry, 1794).

James Makittrick's "Introduction," pp. xvii-xliv, describes how an apothecary or physician should be trained; in some places he describes the trainee as a physician. He suggests the order in which the apprentice should take on responsibilities in the practice, listing the responsibilities of both the apothecary and the apprentice, and recommending a specific set of books for the apprentice to read. Thomas Withers notes that he wrote his tract, which has a strongly moralizing tone, twenty years before publishing it. Like Makittrick's more tolerant work, then, it was written when Parkinson was an apprentice.

The topics Makittrick recommends for study include Natural and Experimental Philosophy, Natural History, Botany, Chymistry, and Pharmacy as well as Physiology, *Materia Medica*, and Pathology ["pathology" here indicating not the examination of diseased tissue but rather "general morbid causes and effects; particular diseases are the

subjects of nosology,” p. xxiii]. The works appearing most commonly in these sets of recommendations include:

Gerard van Swieten. *The Commentaries upon the Aphorisms of Dr. Herman Boerhaave: Concerning the Knowledge and Cure of the Several Diseases Incident to Human Bodies* Translated into English (London: Printed for John and Paul Knapton, 1744).

William Cullen, *First Lines of the Practice of Physic, for the Use of Students in the University of Edinburgh* (Dublin: T. Armitage, 1777).

Albrecht von Haller. *First Lines of Physiology, Translated from the Correct Latin Edition Printed under the Inspection of William Cullen, M.D. To Which is Added, a Translation of the Laborious Index Composed for that Edition* (Edinburgh: Printed for Charles Eliot, 1779).

James Douglas. *Myographiæ Comparatæ Specimen: Or, Comparative Description of all the Muscles in a Man, and in a Quadrupe. A new edition, with improvements. To Which is now Added, an Account of the Blood-vessels and Nerves* (Edinburgh: Printed by W. Sleater, 1775); this work was first published in 1707 and went through many editions.

Jacques-Bénigne Winslow. *An Anatomical Exposition of the Structure of the Human Body*. Translated from the French original, by G. Douglas, M.D. Illustrated with copper plates (London: Printed for A. Bettesworth and C. Hitch, J. Osborn and T. Longman, R. Ware, S. Birt, C. Davis, and T. Astley, 1733-34).

Alexander Monro [primus]. *The Anatomy of the Human Bones* (Edinburgh: Printed by Mr. Thomas Ruddiman, 1726); this was the first of many editions.

Many of these manuals suggest beginning medical reading with van Swieten.

Makittrick’s suggestions, for example, include beginning with van Swieten and proceeding to Shaw’s translation of Boerhaave, Monro’s work on osteology, Douglas’s work on muscles, Berkenhout’s *Pharmacopoeia*, Lewis’s *Materia Medica*, and Mequer’s *Chymistry* (p. xxxiii ff.). Readings suggested for John Hunter by his brother William included Munro, Douglas, Haller, and Winslow (2nd English translation, 1743).¹

¹ Cecil Wall, *The History of the Surgeons’ Company, 1745-1800* (London: Hutchinson’s Scientific & Technical Publications, 1937), p. 87.

APPENDIX III

The Almshouses of Shoreditch²

In the Liberty of Church-end

The Goldsmiths', or Morel's

"Morrel's, or the Goldsmiths', Almshouses, are situated at the extremity of the parish near Hackney Road."

"On the front is the following inscription, beneath the arms of the Goldsmiths' Company: Anno Domini 1705. Then six Alms-houses were erected, by the worshipful Company of Goldsmiths of London, for the relief of six poor members of that Company, pursuant to the last will of Mr. Richard Morell, a late member of the same Company, who left a competent estate, in lands, for maintaining the same Alms-houses for ever. . . Each member has two rooms[.]" (p. 112.)

Harwar's, or the Drapers'

"On the East Side of Kingsland road are twelve Alms-houses." (p. 113.)

"Samuel Harwar, citizen and draper, of London, gave, by will, to the Drapers' company, money and lands, toward erecting and endowing an alms-house for six men and six women, three of each sex to be placed by the Drapers' company, and the other three out of the parish, where the said alms-houses should be erected: which were erected in the year 1713, on the east side of Kingsland road, in this parish." (Bequest LXVI, p. 275.)

The Ironmongers Hospital

"Adjoining Northward of these [Harwar's or the Drapers'] is the Ironmongers Hospital, founded by Sir Robert Jeffryes." (p. 113). This is the almshouse described by 'the Parishioner' as the "most elegant" among them.

Watson's, or the Weavers'

"This building was erected by the Company of Weavers, London, For the use and benefit of poore Members of that Company. Towards the charge thereof Mr. William Watson, a member of the same Company, was a good benefactor, Anno 1670." (p. 117).

Walter's, or the Drapers'

"John Walter, esq. clerk of the Drapers' company, London, in 1658, gave certain moneys for the building and endowing an alms-house at Chruch-end, in Shoreditch, for 8 distrest, quiet, honest, and godly, poor widows, or single women; for the building whereof, the parish purchased a rood of land." (Bequest XLIV, p. 289.)

² Quotations are from Henry Ellis, *The History and Antiquities of the Parish of Shoreditch, and Liberty of Norton Folgate, in the Suburbs of London* (London: Printed by and for J. Nichols, Printer to the Society of Antiquaries, 1798). Ellis often uses different spellings in different places for the same word or name.

Fuller's

"Fullers Almshouses are situated on the South Side of Old Street." (p.115)

"And at the East end is the stone which was placed at the front of the old houses: 'These 12 Houses were built 1591, the gift of John Fuller, esq. to 12 poor Widows of this parish, aged 50.'" (p. 116).

In the Liberty of Hoxton

Aske's, or The Haberdashers' Hospital

"Aske's Hospital stands at the upper end of Pitfield Street; it is an heavy edifice of brick and stone, with a piazza in front, where is an ambulatory 340 feet in length." (p. 136.)

"The Worshipful Company of Haberdashers built this hospital pursuant to the gift and trust of Robert Aske, Esq a late worthy Member of it, for the relief of twenty poor Members, and for the education of twenty boys, sons of decayed freemen of that Company." (p. 136).

Badger's

"Mr. Badger's Alms-house at Hoxton was built in 1698, pursuant to his will, for 6 aged women[.] (p. 149.)

Badger's bequest is listed this way: "Allen Badger—"Six alms houses for six poor aged men;" or, (saith the parish-clerk's remarks) six poor men and their wives." (Bequest LX, p. 283.)

Baremere's

"In Alms-house Yard, Hoxton, stand the almshouses built about 1701 by Mr. Baremere, a Presbyterian minister, for 8 poor women, who have only an allowance of half a chaldron of coals." (pp. 149-50).

Fuller's

"Nearly opposite to these [Baremere's] are six Almshouses built in 1794 by Mr. Fuller, for 12 aged women professing the Presbyterian tenets . . ." [This Mr. Fuller is different from Judge Fuller, above, who lived earlier.] (p. 150).

Lumley's

"Opposite St. Luke's Workhouse, behind the public house known by the sign of the Shepherd and Shepherdess, are the Lumley almshouses. On the front: 'These Almshouses were built in the year 1672, are the gift of Lady Viscountess Lumley to St. Botolph Aldgate and St. Botolph Bishopsgate, repaired 1781.'" (p. 148.)

The bequest (p. 148) specifies "a house and land for ever for the use of the 12 poor people, that did or should inhabit the almshouse." Further bequests were added, and four

acres of pasture-ground in the parish of St. Leonard were purchased from the brewer William Dashwood; on that land “were built by the aforesaid parishes, 6 almshouses: 3 for Bishopsgate, and 3 for Aldgate, given and ordered by Lady Lumley.”(pp. 148-9).

Westby’s

“On Hoxton Causey (the path which leads from Aske’s Hospital to Sir Geo. Whitmore’s house [Whitmore’s, the madhouse at the north edge of Hoxton]), were ten almshouses, on the front of which is this inscription:

“Mrs. Mary Westby Of Bocking in Essex, widow, Erected and endowed These ten almshouses For ten poor Women, A. D. 1749.” (pp. 147-8).

In the Liberty of Moorfields

The Dutch Almshouses

“Also in Mulberry-Court, Long-Alley, are several alms-houses belonging to the Dutch Church at Austin-Friers. On a plane of stone against the center house is, ‘These two Tenements, No. 6 and 7, are the Gift of Egbert Guede, Gent. Born at Stoll in Overysseel one of the 7 Provinces of Holland . . . By his last Will he endowed the said 2 Tenements for the Habitations and Maintenance of 4 such poor Men of and belonging to the Dutch Church in Augustine Fryars London.’” (pp. 180-1)

In the Liberty of Holy Well

Garret’s

“This house, situated at the bottom of Elder-Street, at the extremity of Shoreditch parish, (and not as Maitland, p. 1303, in the liberty of Norton-Folgate,) was founded by Nicholas Garret, citizen and weaver, for six decayed members of that company, in 1729.” (p. 213.) Ellis himself lists these as “Almshouses in Norton Folgate Liberty” on p. 343.

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CURRICULUM VITAE
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Education:

PhD Expected	2014	History of Medicine	Johns Hopkins School of Medicine Advisor: Mary Fissell, Ph.D.
MA	2001	History of Medicine	University of Minnesota
MPH	1994	Epidemiology	University of Minnesota
MS	1988	Family Medicine	Case Western Reserve School of Medicine
MD	1978		Yale University School of Medicine
BA	1972	Social Studies	Radcliffe College

Medical Training and Fellowships:

1998-2000	Sarah Wangenstein Fellowship in the History of Medicine, University of Minnesota
1997-1998	Bush Fellowship in the History of Medicine, University of Minnesota
1991-1992	Minnesota Area Geriatric Education Center (MAGEC) Fellowship, University of Minnesota
1990-1993	Fellowship in Faculty Development and Geriatrics, Family Practice, University of Minnesota
1986-1988	Robert Wood Johnson Fellowship, Case Western Reserve University
1982-1984	Residency in Family Medicine, Brown University School of Medicine/ Memorial Hospital of Rhode Island
1978-1979	Internship in Family Medicine, Brown University School of Medicine/ Memorial Hospital of Rhode Island

Honors and Awards

2010	"Excellence in Teaching" Award, Division of Geriatrics Johns Hopkins University School of Medicine
1998-2000	Awarded Sarah Wangenstein Fellowship in History of Medicine, University of Minnesota
1997-1998	Awarded Bush Fellowship, Bush Foundation, Minneapolis, MN
1995	"Teacher of the Year," St. Joseph's Hospital Residency Program, University of Minnesota
1972	Phi Beta Kappa, Radcliffe College
1972	Summa cum Laude, Radcliffe College

Professional Experience

2013-present	Medical Director, Tockwotton on the Waterfront, East Providence, RI
2013-present	Medical Director, Rhode Island VNA Hospice Program
2013-present	Attending physician, Tockwotton on the Waterfront, East Providence, RI
2013-present	Attending physician, Division of Geriatric Medicine and Palliative Care, Lifespan/ Warren Alpert School of Medicine/Brown University
2010-2011	Associate Medical Director, Johns Hopkins Bayview Care Center
2010-2011	Attending physician, Lakeside Medical-Psychiatric Unit, Johns Hopkins Bayview Care Center
2010-2011	Medical Director, Lakeside Medical-Psychiatric Unit, Johns Hopkins Bayview Care Center
2008-2010	Attending physician, Terrace Rehabilitation Unit, Chesapeake (post-acute care) Unit, and Lakeside Medical-Psychiatric Unit, Johns Hopkins Bayview Care Center
2003-2007	Medical Director, Geriatric Assessment Clinic, Johns Hopkins Geriatrics Center
2003-2004	Medical Director, Terrace Rehabilitation Unit, Johns Hopkins Geriatrics Center
2003-2004	Associate Medical Director, Johns Hopkins Geriatrics Center (John R. Burton Pavilion)
2002-2007	Attending physician and preceptor, Geriatric Assessment Clinic, Johns Hopkins Geriatrics Center
2001-2007	Attending physician, Sub-acute Care Units, Johns Hopkins Geriatrics Center
1999-2001	Attending physician, Transitional Care Units (Edina Care Center, Edina, MN, and North St. Paul Transitional Care Center, St. Paul, MN), for Health Partners
1994-1996	Practicing physician, Geriatric Evaluation and Management Clinic (Minnesota GEM Program, a NIH-funded randomized clinical trial)
1993-1997	Medical Director, Wilder Home Health, St. Paul, MN
1993-1997	Attending physician, St. Joseph's Hospital, St. Paul, MN
1993-1997	Medical Director, Wilder Health Care Center, Wilder Residence East, Wilder Residence West (skilled nursing facilities), St. Paul, MN
1993-1995	Medical Director, Wilder Alzheimer Demonstration Project (HCFA-funded demonstration project)
1993-1995	Practicing physician, Wilder Health Care Center, Wilder Residence East, Wilder Residence West (skilled nursing facilities), St. Paul, MN
1992-1993	Practicing physician, Wilder Senior Health Clinic, St. Paul, MN;
1993-1995	lead physician, 1993-1994
1991-1993	Practicing physician, University Health Care Center (skilled nursing facility), Minneapolis, MN
1991-1992	Practicing physician, Geriatric Evaluation and Management Clinic, University of Minnesota Hospital and Clinics, Minneapolis, MN
1988-1990	Attending physician, Memorial Hospital of Rhode Island, Pawtucket, RI
1988-1990	Practicing physician and preceptor, Family Care Center, Memorial Hospital of Rhode Island, Pawtucket, RI

1986-1988 Practicing physician and preceptor, Family Practice Clinic, University Hospital, Cleveland, OH
 1985 Private medical practitioner, Watertown, MA
 1982-1984 School physician, Lexington, MA

Academic Appointments:

2001-2012 Assistant Professor of Medicine, Johns Hopkins School of Medicine
 2001 Clinical Associate Professor, Department of Family Practice and Community Health, University of Minnesota Medical School, Minneapolis, MN
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 1990-1993 Medical Fellow Specialist, Department of Family Practice Community Health, University of Minnesota Medical School, Minneapolis, MN
 1988-1990 Clinical Assistant Professor of Family Medicine, Brown University School of Medicine/ Memorial Hospital of Rhode Island, Pawtucket, RI
 1986-1988 Instructor in Family Medicine, Case Western Reserve University School of Medicine, Cleveland

Hospital Appointments:

2013-present Rhode Island Hospital and The Miriam Hospital, Providence, RI
 2001-2012 Johns Hopkins Bayview Medical Center, Baltimore, MD
 1999-2001 Regions Hospital, St. Paul, MN
 1993-2001 Bethesda, St. Joseph's, St. John's and Midway Hospitals (HealthEast Hospitals), St. Paul and Minneapolis, MN
 1988-1990 Memorial Hospital of Rhode Island, Pawtucket, RI
 1986-1988 University Hospital, Cleveland, OH

Publications:

Peer-Reviewed Journal Articles:

Boult C, Green AF, **Boult LB**, Pacala JT, Snyder C, Leff B. Successful Models of Comprehensive Care for Older Adults with Chronic Conditions: Evidence for the IOM's "Retooling for an Aging America" Report. J Am Geriatr Soc 2009; 57(12): 2328-37.
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Book Chapters:

Boult L. Clinical Assessment of Older Adults. In Durso SC, ed., The Oxford American Handbook of Geriatric Medicine. Oxford and New York: The Oxford University Press, 2010, Chapter 3, pp. 27-43.

Boult C, **Boult L**, Kane RL. How effective is geriatrics?: a review of the evidence. In Katz PR, Kane RL, Mezey MD, eds., Advances in Long-term Care, vol. 3. New York: Springer, 1994.

Reviews:

Boult L. Review of Self, Senility, and Alzheimer's Disease in Modern America: A History, by Jesse Ballenger: Bull Hist Med 2010; 84(1): 146-8.

Boult L. Review of Clio in the Clinic: History in Medical Practice, Jacalyn Duffin, ed. JAMA 2006; 296(15): 1910.

Davisson L. Review of Brief Textbook of Surgery, Curtis P. Artz, Isadore Cohn, and John H. Davis, Arch Surg 1977; 112: 1505.

Letters:

Boyd CY, Darer J, Boult C, Fried LP, **Boult L**, Wu AW. Clinical practice guidelines for older patients with comorbid diseases. JAMA 2006; 295(1):34-5.

Marciniak B, Brown B, Peterson B, **Boult L**, Guay D. Adverse Consequences of Capsaicin Exposure in Health Care Workers. *J Am Geriatr Soc* 1995; 43 (10): 1811.
 Levy S, Monroe A, Dowling P, McQuade W, **Boult L**. Letter. *Fam Med* 1992; 24:258-9.

Abstracts:

Chang JC, Cordts G, **Boult LB**, Fried LP. A pilot evaluation of perceived need for palliative care education in academic geriatrics fellowship. *J Am Geriatr Soc* 2005; 53(4): S184-5.
 Boult C, **Boult L**, Morishita L. Outpatient Geriatric evaluation and management: a randomized clinical trial. *J Am Geriatr Soc* 1999; 47(9): S7.
 Gjerdingen D, Neff J, **Boult L**, Wang M, Chaloner K. Seniors' Opinions about life-sustaining procedures in the setting of dementia. *J Am Geriatr Soc* 1998; 46(9): S33.
Boult L, Boult C, Morishita L, Smith S. The process of outpatient geriatric evaluation and management (GEM). *J Am Geriatr Soc* 1997; 45(9): S46.
 Boult C, **Boult L**, Morishita L, Pirie P. Recruiting high-risk older participants for a randomized clinical trial. *J Am Geriatr Soc* 1997; 45(9): S48.
 Morishita L, Boult C, **Boult L**, Smith S, Pacala J. Satisfaction with outpatient geriatric evaluation and management (GEM). *J Am Geriatr Soc* 1997; 45(9): S34.
 Boult C, Dowd B, McCaffrey D, **Boult L**, Hernandez R, Krulewitch H. Risk for repeated hospital admissions in elderly patients. *Ann Intern Med* 1994; 120 (suppl 2. ACP Journal Club): 49.
 Murphy C, Boult C, **Boult L**, Ebbitt B, Luptak M, Kane RL. Targeted outpatient GEM: results of a pilot study. *J Am Geriatr Soc* 1993; 41(10): SA48.
Boult L, Boult C, Pirie P. Test-retest reliability of a questionnaire that identifies elders at risk for hospital admission. *J Am Geriatr Soc* 1993; 41 (10): SA48.
 Boult C, Dowd B, McCaffrey D, **Boult L**. Predictive validity of a questionnaire that identifies elders at risk for hospital admission. *J Am Geriatr Soc* 1993; 41(10): SA49.
 Boult C, Kane RL, Louis TA, **Boult L**, McCaffrey D. Chronic conditions that lead to functional limitation in the elderly. *J Am Geriatr Soc* 1992; 40(10): SA65.

Grants and Extramural Sponsorship:

"Physician Case Management of Frail Elderly Minnesotans: Results of an Interdisciplinary Pilot Program," All University Council On Aging, University of Minnesota, AY 1992-93, Co-Investigator, \$3,000
 Summit Hill Living at Home/ Block Nurse Program, HealthEast Foundation, \$2,000
 "Reliability of an Instrument for Estimating Elders' Probability of Future Hospitalization," Division of Epidemiology, School of Public Health, University of Minnesota, AY 1992-93, Principal Investigator, \$1,717

Teaching: Lectures and Presentations:

Director, Johns Hopkins component "Most Difficult Case" curriculum,	2010-2011
national program coordinated at the Medical College of Wisconsin	
Co-Director, Dementia Curriculum for geriatrics fellows, Johns Hopkins	2009-2011
School of Medicine; lectures:	
"Recognizing Dementia in Clinical Practice"	2009-2010
"Dysexecutive Syndromes and Frontotemporal Dementia"	2010

“Parkinson’s Disease Dementia (PDD) and its Variants”	2010-2011
“Diagnosing Dementia: Alzheimer’s Disease”	2010
Director and sole instructor, Geriatric Assessment Curriculum (semi-weekly conference for fellows; lectures, case discussions)	2009-2011
“Comprehensive Geriatric Assessment and Geriatric Evaluation and Management,” Division of Geriatrics, Johns Hopkins School of Medicine, annual lecture course, “The Geriatric Continuum of Care”	2008-2010
“Recognizing Dementia in Clinical Practice,” seminar for Osler Residents (Internal Medicine residents at Johns Hopkins Hospital)	2006
“Writing Consultation Notes and Letters (Hints for Writing),” annual lecture for Geriatrics Fellows	2005-2011
“Geriatric Assessment in Oncology,” lecture for Oncology Fellows, Johns Hopkins Hospital	2005-2006
“Writing Better Discharge Summaries,” lecture for Internal Medicine Residents, Johns Hopkins Bayview Medical Center	2005-2006
“Taking Care of Prominent Patients (VIPs),” lecture for Geriatrics fellows	2004
“Subacute and Rehabilitation Care,” seminar for Osler Residents (Internal Medicine residents at Johns Hopkins Hospital)	2004
“Geriatrics,” Course on the Physician and Society (MSII), Johns Hopkins School of Medicine (small group discussions)	2004
“Comprehensive Geriatric Assessment and Geriatric Evaluation and Management,” lectures given twice yearly, Johns Hopkins Bloomberg School of Public Health, Course #309-607, “Health Care for Aging Populations”	2003-2008
“Sub-acute and Rehabilitation Care,” lectures given twice yearly, Johns Hopkins Bloomberg School of Public Health, Course #309- 607, “Health Care for Aging Populations”	2003-2008
Director and attending physician, Geriatric Assessment Clinic, Johns Hopkins Bayview Medical Center (teaching geriatrics fellows)	2003-2007
“Comprehensive Geriatric Assessment and Geriatric Evaluation and Management,” Division of Geriatrics, Johns Hopkins School of Medicine, lecture in annual Course on Health Services	2003-2006
“Sub-acute and Rehabilitation Care,” Division of Geriatrics, Johns Hopkins School of Medicine, lecture in annual Course on Health Services	2003-2006
Instructor, “Professionalism” course, Clinical Medicine I, University of Minnesota Medical School, Minneapolis, MN (first-year medical students)	1998-2000
“End of Life Care,” Lecture for Clinical Medicine IV, the University of Minnesota Medical School (fourth-year medical students)	1998-2000
Instructor, “The Aging Game”, Clinical Medicine IV, the University of Minnesota Medical School (fourth-year medical students)	1993-1997
Instructor, Clinical Medicine II (History and Physical Examination), University of Minnesota Medical School	1991

Faculty member and group leader, Affinity Group Program, Program in Liberal Medical Education, Brown University	1988-1990
Coordinator and preceptor, ethics curriculum, Department of Family Medicine, Brown University/ Memorial Hospital of Rhode Island	1988-1990

Clinical and Ward Teaching:

Attending Physician, Sub-acute and Rehabilitations Units, Johns Hopkins Geriatrics Center (teaching Johns Hopkins interns, fellows, and medical students)	2001-2007 2007-2011
Teaching attending physician in inpatient geriatrics, Saint Joseph's Hospital Family Practice Residency Program, University of Minnesota Medical School, Minneapolis, MN	1993-1997
Director and attending physician, outpatient clinical geriatrics rotation, Saint Joseph's Hospital Family Practice Residency Program, University of Minnesota Medical School, Saint Paul, Minnesota	1993-1995
Clinical preceptor, Geriatric Nurse Practitioner Program, College of Saint Catherine School of Nursing, Saint Paul, MN	1993-1995
Clinical preceptor, Geriatric Nurse Practitioner Program, University of Minnesota School of Nursing	1993-1995
Attending physician, Family Care Center and Memorial Hospital, Department of Family Medicine, Brown University	1988-1990
Lecturer and preceptor, Wilder Home Health (Home Care Program), Wilder Foundation Services to the Elderly, Saint Paul, Minnesota	1993-1997

Mentoring: Advisees

Mya Thein, Geriatric Oncology Fellow, co-mentoring, with Ilene Browner, MD: Using Comprehensive Geriatric Assessment to Stratify Treatment Choices for Older Cancer Patients. Johns Hopkins Geriatric Grand Rounds, May 6, 2010.	2009-2010
Alia Alhumaid, Geriatrics Fellow, Johns Hopkins School of Medicine: Projects: "Special Care Units for Dementia Patients" and "The Recognition of Dementia in Clinical Practice"	2009-2010
Abigail Holley (Internal Medicine Resident, Johns Hopkins Bayview Medical Center), Elective in the History of Medicine, including oral Histories, "Mason Lord and Chronic Care"	2006-2009
Adam Lipworth, resident at Massachusetts General Hospital, writing project in the History of Medicine, "Dr. Selman Waksman's Struggle to Preserve His Image Through a Credit Dispute Over Streptomycin)	2005-2007
Annie Garment, NYU Medical Student, writing project in the History of Medicine (topic: Body Bequeathal in the United States), article published in <i>Academic Medicine</i> 2007.	2005-2007
Jennifer Forti, Master of Physician Assistant Studies (MPAS, 2003), University of Nebraska; thesis/ article, "Elder Abuse: A Clinician's Guide to Recognition, Management and Intervention."	2002-2003

Editorial Activities:

Reviewer of manuscripts (starting year)

The Journal of the American Geriatrics Society (1994)

The Gerontologist (1994)

The Archives of Family Medicine (1997)

The Journal of the American Medical Directors Association (2001)

The Bulletin of the History of Medicine (2006)

The Johns Hopkins University Press (2009)

Licensure:

State of Rhode Island Medicine and Surgery License Number 6067, expires June, 2014
Drug Enforcement Agency, #BB292----, expires 7/31/2015

Certification:

Diplomate, American Board of Family Practice 1984-1990; recertified
1990-1997, 1997-2004, 2004-2014

Certificate of Added Qualification in Geriatric Medicine, 1992-2002; recertified
2002-2012, 2012-2022

Certified Medical Director (CMD), 1996-2003; 2013-present

Organizational Activities:

Institutional Appointments:

Member, Task Force on Women's Academic Careers, Department of
Medicine, Johns Hopkins School of Medicine 2010- 2011

Member, Executive Committee, Division of Geriatrics, Department
of Medicine, Johns Hopkins School of Medicine 2010-2011

Member, Clinical Practice Committee, Johns Hopkins Bayview Care
Center 2010- 2011

Member, Education Committee, Division of Geriatrics, Department
of Medicine, Johns Hopkins School of Medicine 2004-2007;
2008-2011

Member, Geriatric Program Evaluation Committee, Johns Hopkins
School of Medicine/ Bayview Medical Center 2003-2006

Member, Fellowship Curriculum Committee, Division of Geriatrics,
Department of Medicine, Johns Hopkins School of Medicine 2003-2006;
2008-2011

Member, Ethics Subcommittee, Primary Care Curriculum Committee,
University of Minnesota Medical School 1998-1999

Member, Ethics Committee, St. Joseph's Hospital, St. Paul, MN 1997-1999

Member, Hospice Committee, St. Joseph's Hospital, St. Paul, MN 1997-1998

Member, Ethics Committee, Wilder Foundation, Services to the
Elderly Division 1996-1998

Member, Geriatric Care Network (and Subcommittees on Risk
Assessment and Care Management), Twin Cities Area, MN 1994-1995

Professional Societies:

Membership:

American Geriatrics Society, 1992-

American Medical Directors Association, 1993- 2004; 2013-present

American Association for the History of Medicine, 1997- present
 History of Science Society, 1997-2006
 Minnesota Medical Directors Association, 1993-2001

Professional Societies: Leadership

Member, Governing Council, American Association for the History of Medicine	2013-2016
Member, Education and Outreach Committee, American Association for the History of Medicine	2006- 2008
Chair, Clinician-Historian Group, American Association for the History of Medicine	2006- 2007
Co-Chair, Clinician-Historians Group, American Association for the History of Medicine	2005-2006
Chair, Osler Medal Committee, American Association for the History of Medicine	2004-2005
Member, Osler Medal Committee, American Association for the History of Medicine	2003-2004
Member, Ethics Committee, American Medical Directors Association	2000- 2003
Member, Board of Directors, Minnesota Medical Directors Association	1998-2001
Member, Service Implementation Committee, Summit Hill Living at Home/ Block Nurse Program	1993-1994
Vice-chairman of the Board, Summit Hill Living at Home/ Block Nurse Program	1993-1994

Consulting:

Ramsey Medical Society (Ramsey County, MN), cataloguing and archival preservation of the Society's historical documents	1998-2000
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Invited Presentations:

Section Chair/ Discussant, Session on "Medicine and the End of Life," American Association for the History of Medicine, Baltimore, Maryland, April 28, 2012.

"Cognitive and Functional Assessment," Meet the Professor Session, Current Topics in Geriatrics (CME), Johns Hopkins School of Medicine, Baltimore Waterfront Marriott Hotel, Baltimore, Maryland, February 15, 2007

"Subacute Care," Geriatrics "Mini-Fellowship," Division of Geriatrics, Department of Medicine, Johns Hopkins School of Medicine, Mt. Washington Conference Center, Baltimore, Maryland, May 19, 2006

"Cognitive and Functional Assessment," Meet the Professor Session, Current Topics in Geriatrics (CME), Johns Hopkins School of Medicine, Baltimore Waterfront Marriott Hotel, Baltimore, Maryland, February 9, 2006

"Comprehensive Geriatric Assessment," Audiovisual Presentation for the National Association of Geriatric Education Centers, Minneapolis, Minnesota, 2006

"Orthopedic-Geriatric Collaborative Care of Hip Fractures" case presentation, Geriatric Grand Rounds, Johns Hopkins School of Medicine, May 31, 2005

- “The Evidence Behind Mental Status Testing,” Annual Current Topics in Geriatrics (CME), Johns Hopkins School of Medicine, Radisson Towson Sheraton Hotel, Towson, Maryland, October 14, 2004
- “Implantable Cardioverter Defibrillators in the Elderly,” case presentation, Geriatric Grand Rounds, Johns Hopkins School of Medicine, December 9, 2003
- “Practical Use of Assessment Instruments,” Current Topics in Geriatrics (CME), Johns Hopkins School of Medicine, Radisson Plaza Lord Baltimore Hotel, Baltimore Maryland, Workshop, October 16, 2003
- “The Illness and Death of Ignaz Semmelweis,” Geriatric Grand Rounds, Johns Hopkins School of Medicine, May 19, 2002
- “Tube Feeding and Dementia,” “In the Trenches” session, American Medical Directors Association Annual Meeting, March 23, 2002
- “DNR Orders in Long-term Care,” “In the Trenches” session, American Medical Directors Association Annual Meeting, March 17, 2001
- “Geriatric Medicine and Dentistry: the Medical Director’s Role,” University of Minnesota/ Wilder Foundation CME Program, Saint Paul, MN, September 15, 1998
- “Adult Medicine,” Conference on Cultural Challenges in Health Care Ethics: Building Successful Relationships Between Hmong Patients and Western Clinicians, Saint Paul, Minnesota, October 23-24, 1997
- “Burnout in Family Practice Residents. American Public Health Association, Boston, Massachusetts, November, 1988.
- “Resident Burnout and Its Implications for Family Medicine Training Programs,” North American Primary Care Research Group, Ottawa, Ontario, Canada, May 11, 1988